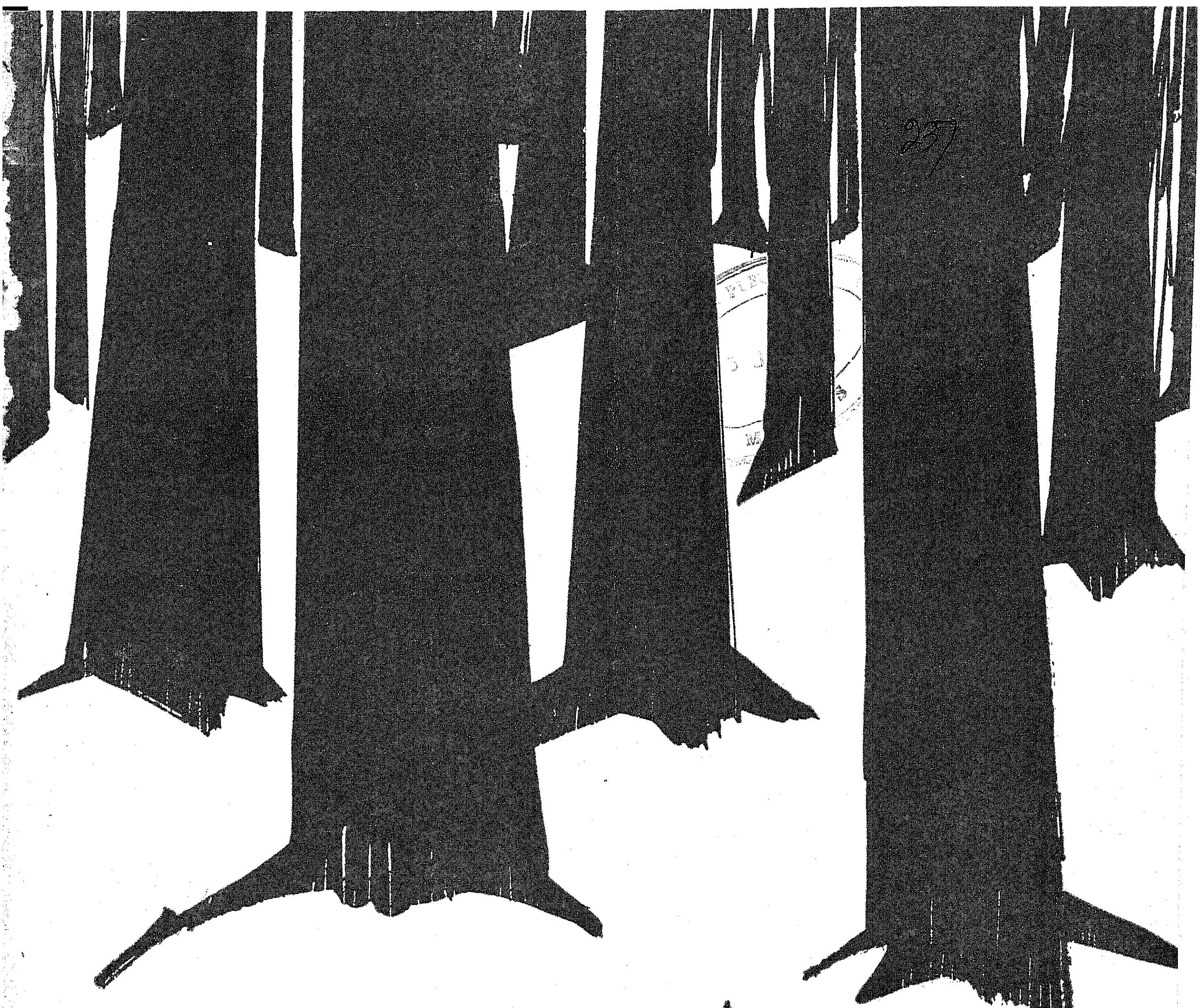
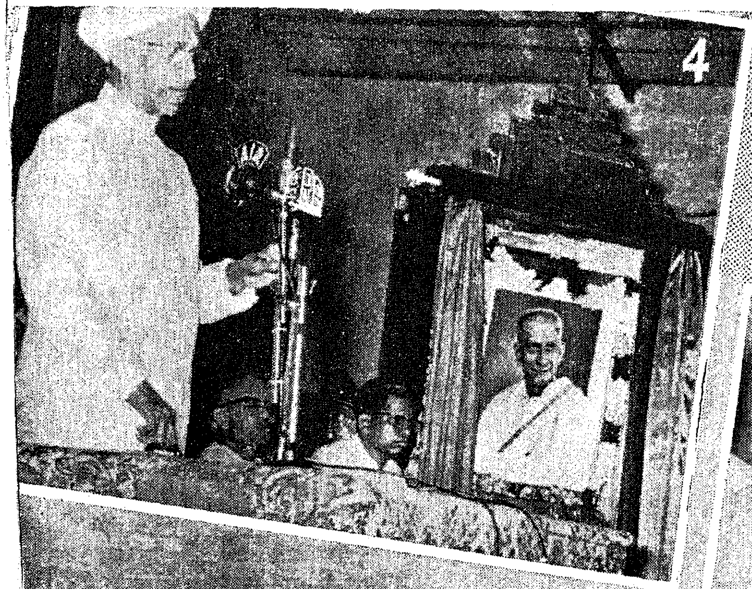


Madras Information

The case
devaluati
— a featur

President in the city



1. Dr. S. Radhakrishnan, President of India on his arrival at Madras Central on June 1st was received by the Chief Minister and Governor.

2 & 3. The President unveiled the statue of Saint Thiruvalluvar at Mylapore.

4. The President unveiled the portrait of Dr. T. S. Thirumurthi at Mylapore.

5. President's departure.

MADRAS *Information*

[Library stamp] 13 JUL 1966 MADRAS

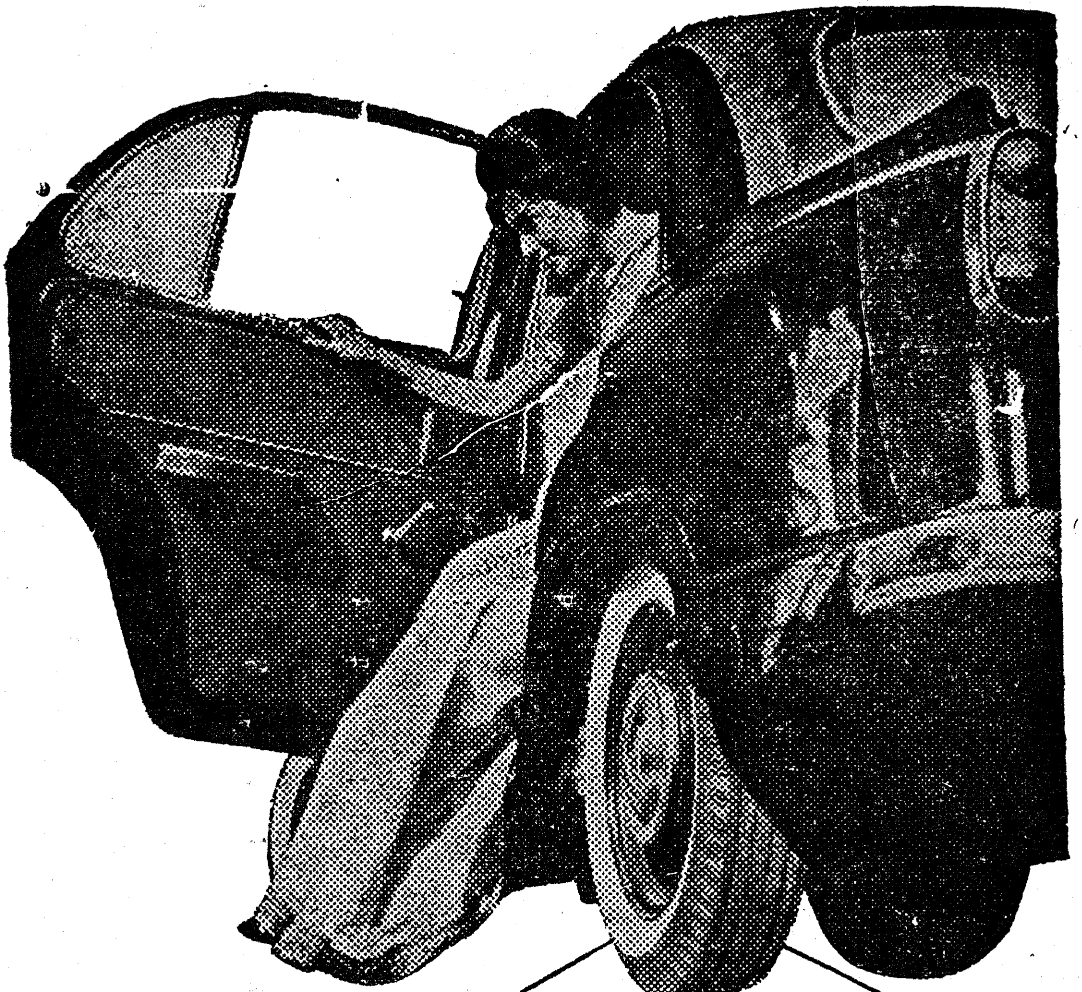
Vol. XXI JULY 1966 No. 7

CONTENTS

		PAGE
1.	Vanamahotsavam	3
2.	Development of Forests under Fourth Plan	4
3.	The Foreign Exchange Situation—Need for Devaluation.	5
4.	Devaluation in India and Abroad	9
5.	Devaluation : Questions and Answers	12
6.	Steps towards Higher Agricultural Production .. —*By M. S. Sivaraman, I.C.S. (Retd.).*	20
7.	Food Production under the Plan	26
8.	Loop—Best Family Planning Device for India .. —*By Dr. V. N. Shirodkar, M.D., F.R.C.S., F.R.C.O.G., F.A.C.S.*	29
9.	Legacy of Pandit Nehru .. .. —*By Frank Moraes.*	32
10.	Statistical Abstract for Madras State	34

THIS MONTH'S COVER

There are two living traditions in India. One enjoins the planting of trees. The other prohibits the cutting down of live trees. We remind ourselves of this tradition each year when the monsoon clouds gather black and thick in the skies and plant trees in our own gardens, in public places and in the forest lands. For, trees constitute the wealth of the nation in more ways than one. This month's cover reminds us of our duty to plant and protect trees.



New tyre or TVS retread?

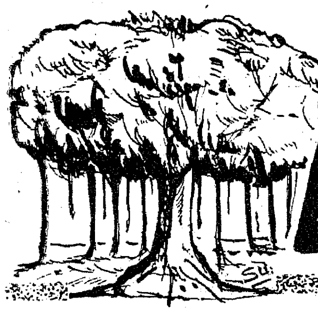
Only the owner knows!

As a prudent car owner you would like to get the most out of your tyres by retreading them. But you wouldn't like to use a tyre that looks obviously a retread. TVS retreads look like new, perform like new—and only you would know that they are retreads. **TVS – the largest retreaders in India**

SUNDARAM INDUSTRIES PRIVATE LIMITED

(A member of the TVS group of companies)

Bangalore, Coimbatore Madras Pudukkottai Secunderabad Tirunelveli



Vanamahotsavam

Every year on July **1,** *we are celebrating Vanamahotsava all over the country. This article will be read with interest on this occasion.*

Trees have many virtues, but the greatest of them is love. Of living things, they are the most harmless. They live, but not on other living things; they feed only on the soil, the air, the light. They are strong, but never brutal in their strength. They neither rend, nor bite, nor sting. Unlike grasses, they never become weedy plagues. They give without stint—seed, acorn, timber, humus—the mainstay of our life. Their shade saves us from the Sun's oppression; their subtle music brings exquisite beauty to the sullen heart. Who is so ascetic as the living noble forest—so reminiscent of our forbears who built the mighty tradition of Bharat!

Trees have souls!

Trees have souls—so our ancestors believed. Modern man has made of them soulless timber. Science has now discovered in them the main support of life. Mankind was nursed into life by trees. But for them, man would not have been possible.

Bereft of the growth of trees our country will become a desert. Do not forget the lesson of history. Civilizations of ancient men in many lands disappeared not through what others did to them, but what they did to themselves. Modern science has confirmed what ancient sages had seen. The forest cools the air and sprays the sky, and multiplies the clouds. They bring down rain; they control the behaviour of floods, regulate the rivers, supply the springs, grow fish. They dry the swamps and control malaria. Gobi and Iraq, once cradles of civilized life, are now deserts. The civilization of Maya disappeared for the same reason. Aldous Huzley says: " The clearing of forest led to erosion, and in course of time all the soil washed from the fields into the lakes. The result was double disatrous. The fields became barren and the lakes turned into enormous mudholes ". The depletion of soil due to deforestation has made some areas in the U.S.A. a howling desert of the size of Sahara which could be reclaimed only at the rate of an inch every five hundred to a thousand years. Fertile lands vanished under the trees, not of foreign armies, but of the reckless destruction of trees which made the soil which supported human life barren. We see similar developments in many parts of our country. In the olden days, in Rajasthan, for instance, every ruler excavated a tank. Every tank was planted round with trees. Every temple had shady groves. Now the rulers are gone. The tanks are drying up. Rivers are mere sandy tracks. The Sarasvathi which fed a thousand-templed lake garden is a dusty stretch. Patan, a centre of culture, is a town surrounded by desert.

Urgent problem

Our hillsides are bare. They were once covered with forests. They have long been swept away by our ignorance. Look at your Ooty, the queen of hill stations, and at many other hillsides and mountain basins. Even at places like the lower stretches of the mighty Himalayas—the guardian of our integrity and culture—are being robbed of their green mantle. The soil from mountain sides is being washed away; the springs are drying up; the water table is being lowered. Naturally the rivers are drying up.

Irrigation is considered indispensable for agricultural expansion. But irrigation projects are expensive. The planting and nurture of trees are inexpensive. And they will assure a flow and volume of water in our rivers earlier than any extensive programme of irrigation. What is the answer to our increasing population and our deteriorating soil and water supplies? Afforestation. The question of developing our river valleys is, therefore, an urgent problem.

It is not enough to have trees in our forests. What is needed is to nurse the trees wherever they may be. A *neem* in front of a humble cottage, a *pipul* beside a well, an *imli* in a grave yard, a *goldmohur* or an *amaltas* in a bungalow compound, a *gular* or a *pakar* in school grounds, a babul or two in a cultivator's field, shady trees all along roadsides, vat in temple compounds, these have a greater value in our economy than artificial fertilizers. Everyone, therefore, can lend a hand in increasing both the beauty and prosperity of our land.

Tree-planting is no longer a ceremony. The nation has made of it a national habit.

DEVELOPMENT OF FORESTS UNDER FOURTH PLAN

The scheme for Forest Consolidation is one of the Schemes included in the Fourth Five-Year Plan. A sum of Rs. 3 lakhs has been set apart for this scheme for the plan period. The object of the scheme is to undertake survey and demarcation of ex-zamin forests as a preliminary step to constitute them as Reserved Forests under Madras Forest Act, 1882, in order to increase the Forest Resources of the State.

"Economic Plantations—Softwood" is another Scheme included in the Fourth Five-Year Plan. The object of the scheme is to raise softwood species in suitable localities to augment suppliers of softwood to the match Industry, a considerable portion of which is managed in the Madras State on a Cottage Industry Scale. Madras State is not producing all its requirements of softwood at present. As the demand is increasing, it is essential to expand softwood plantations in all suitable localities.

Fuel trees

The raising of fuel trees under the head of "Development of Forests" is also included in the Fourth Five-Year Plan. A sum of Rs. 60 lakhs has been set apart for the scheme to raise 12,000 hectares (30,000 acres) during the plan period. The demand for firewood is rapidly increasing with the rapid increase of population. With a view to meet the increasing demand, the Chief Conservator of Forest's with the main object to create large fuel plantations in forests adjacent to densely populated cities and other centres of high consumption, has now submitted a proposal for implementation of the scheme over an area of 1,680 hectares (4,200 acres) during 1966-67 at an estimated cost of Rs. 10,79,200.

The scheme of creation of river, canal and lake fringe forests under the head of "Development of Forests" is also included in the Fourth Five-Year Plan. A sum of Rs. 11 lakhs has been ear marked for this scheme to raise 1,600 hectares (4,000 acres) during the Plan period. The object of the scheme is to raise plantations of economic value, viz., teak, Sissoo, Eucalyptus hybrid, bamboos and other suitable species along the banks of rivers, canals and lakes to check silting of the rivers and reservoirs. These plantations when established apart from slowing up the process of silt formation will in the long run add to timber supplies inthis State.

Lac Development

Lac Development is included in the Fourth Five-Year Plan. The object of the scheme is to increase Lac production as lac and its by-products are valuable commercial commodities. It is also proposed to raise lac host trees in suitable areas to increase the lac potential of the State.

The proposal is for undertaking Lac production on a larger scale and also for raising 15 hectares (38 acres) of Lac host plantations during 1966-67 at an estimated cost of Rs. 50,000.

THE FOREIGN EXCHANGE SITUATION— NEED FOR DEVALUTION

In 1964–65, our import bill excluding food under PL 480 came to Rs. 1,134 crores. We had to repay Rs. 137 crores for debts. Against a total liability of 1,271 crores, our export earnings were only Rs. 803 crores. The gap was of the order of Rs. 468 crores. We bridged this by aid from the socialist bloc to the extent of Rs. 92 crores, the western bloc to the extent of Rs. 336 crores and foreign investment of Rs. 40 crores.

TABLE I.

Foreign Exchange Account 1964–65.

	RUPEES IN CRORES.		RUPEES IN CRORES.
Gap	468	Aid from Socialist bloc.	92
		Aid from Western bloc.	336
		Aid from foreign investment.	40

This is a forbidding picture. Projections during the Fourth Plan period show a more disturbing indication. For the moment, let us assume that we have no plan at all. That is to say, let us not build any more industrial plants, dams or power stations. Even so, our bill of imports/exports is expected to be as below :

TABLE II.

	Year 1.	*Year* 2.	*Year* 3.	*Year* 4.	*Year* 5.
Imports (excluding food).	948	1,007	1,097	1,148	1,170
Likely exports.	865	935	1,000	1,070	1,130
Gap ..	83	72	97	78	40
Add debt. obligations.	215	240	290	315	330
Total gap.	298	312	387	393	370

Thus even if we decided to have no Fourth Plan at all and merely maintained our economy on an austere scale, we need nearly Rs. 300 crores to Rs. 390 crores of assistance each year. This is on the assumption that exports will increase sharply from Rs. 865 crores to Rs. 1,130 crores.

If we take into account the demand of foreign exchange for projects, we need Rs. 2,450 crores more. The total gap will then look as below:

	RUPEES IN CRORES.
Gap without the plan	1,760
Gap on account of the plan	2,450
Total ..	**4,210**

Out of this, we may expect Rs. 500 crores from socialist countries. We have still to find the difference. The panalty of not bridging the gap is (i) to cut down the imput of imports into the economy and slow down industrial and agricultural production (ii) to deny much needed industrial and economic growth on account of the plan and or (iii) to default on repayment of debts. Even if we can and do fully default on our debts, our gap will be reduced only by Rs. 1,390 crores. Even if we cut down the plan fully, our foreign exchange gap is likely to be Rs. 1,760 crores.

Compelling factors

Obviously, we cannot contemplate the prospect of defaulting on our debts. This will diminish for all time our prospects for further growth, besides abridging our prestige and standing. Nor can we trim the plan except marginally. Many expectations have been aroused among our people. The third course of running our industries at even ower capacities than now will be suicidal. We have, therefore, to find out practica. ways to bridge the gap to the maximum extent possible and at the same time reduce dependence on aid. Otherwise, we will be strangulating our economy.

Let us consider first the suggestion which is made that if we stop all remittances of profits on foreign enterprises, this problem can be solved. The remittances of profits range at the most at Rs. 40 to 45 crores a year. Even if we stop this, we will have only a token relief apart from repercusions on the export markets in countries which will be affected by such action of ours. The advantage of such expropriation is disproportionately small.

The second suggestion is that we should do our best to increase exports. This we have been doing for many years now through what are called export incentive

schemes. These have been modified from time to time but consist essentially of giving a subsidy to the exporter to export. Thus, a person who exports cotton textiles to the value of Rs.100 gets a subsidy directly or indirectly ranging from Rs. 15 to Rs. 40 or Rs. 50. This is given very often through the devise of allowing the exporter to use a part of the foreign currency he earns for imports of goods he wants. This is called " import entitlement ". The shortage of foreign exchange has led to a high price for such entitlements which are often traded at high 'premia'. There are even advertisements of such sales. The foreign exchange of the entitlement say Rs. 15 is sold for Rs. 30 to a willing buyer who comes within the rules. The buyer feels satisfied since he needs the foreign exchange badly. The seller is happy since he has met his losses on exports. The main point is that whatever the form of these schemes, they all comprise a subsidy to the exporter. It is a recognition of the fact that he has to sell abroad at prices lower than what they are in India.

Present Export system

The export incentive schemes have however led to many malpractices. Because of the high premium for foreign exchange, traders sometimes sell goods abroad at very low prices just to get foreign exchange entitlements. Banaras Saris sell on the streets of Singapore at dirt low prices. Sometimes, shoddy goods have also been sold. Besides, the rates of incentives vary from commodity to commodity. Truth to tell, this means, we are subsidising the commodities differently or put another way, valuing our rupee differently from commodity to commodity. The imports arising from export incentive schemes are not always the high priority goods we need. Sometimes, for export of steel, dry fruit is allowed to be imported although we may not strictly need it. The only justification urged is that there is a high price for such imports.

So long as this cumbersome system operates, it is doubtful whether we can increase our exports in a marked manner. Our exporters especially of the new types of goods should get a clear defined incentive in the form of higher incomes in India. This should be possible without resort to a whole series of complicated incentive schemes, imports of non-priority goods and leakage of foreign exchange. How we can do this is discussed later.

We must make imports less attractive in preference to goods produced in India. We try to do this now through a system of detailed controls. A factory which need spares worth even Rs. 100 has to approach Government today for a licence. Though goods may be produced in India, because of our costs being high, people prefer to import. We have tried to check this by two ways. One is a system of elaborate checks to see that what is produced in India is not allowed to be imported. Another is to tax imports heavily, 20 to 30 per cent. Even this has its defects. Our control system breeds a lot of corruption. The bigwigs manage to walk through all the obstacles and yet import. The only remedy may be to pitch the level of taxes very high on imports, and, to minimise the system of controls. Those who can afford to buy the goods at very high prices may do so. But in order to be fair, the system of import duty should as far as possible be uniform. This is the pattern we have tried to adopt but even today the duty is not high enough to encourage indigenous substitution.

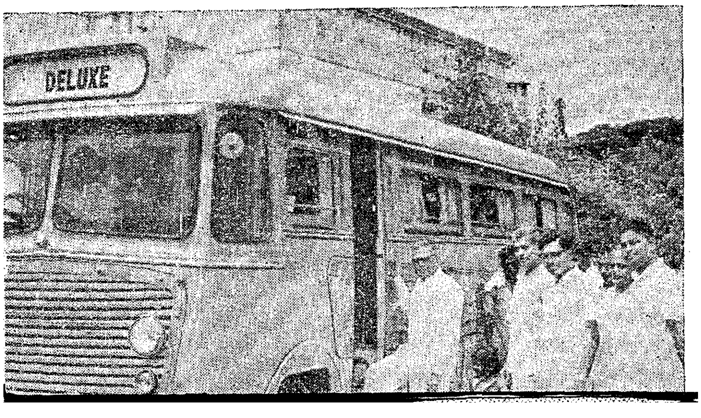
There is yet another area which we must tackle in order to decrease the gap in foreign exchange. That is to reduce the outflow of remittances of profits and capital by foreign capitalists. This is a logical corollary of our giving them a protected market by taking out imports and subsidising exports. However, if we tax remittances there will be an international repercussion. The only way which avoids this is devaluation.

The economic picture

Recent experience with the National Defence Remittance Scheme has shown that given proper incentives, a sizeable part of our nationals' earnings abroad will return to India. The gist of the remittance scheme is that if an Indian national resident abroad remits foreign exchange to India, he can sell part of it at a premium for import of certain types of goods. A number of industrialists badly in need of foreign exchange have bought this at a premium. In effect what we have done is to give the remitter a higher number of rupees per dollar of sterling than he would otherwise get. During the period of its operation, the scheme got Government of India Foreign Exchange to the extent of nearly Rs. 30 crores. This shows the direction in which effective action lies.

Considering the shortage of foreign exchange and the inbalances in our economy, all the measures attempted or being suggested point in one direction—that of making foreign exchange worth more in rupees than before.

Sri R. Venkataraman, Minister for Industries having a ride in the New Deluxe Tourist Coach of the State Transport Department on 25-5-'66. The Coach was commissioned from 14th June '66.



The present method of taxing imports and subsidising exports has a number of loopholes. Besides it leaves out remittances of profits and does not attract our nationals' remittances. Taking all these factors into consideration, economists have advised that exchange rate adjustment—'devaluation'—is a simple expedient which will help to restore the economy's health.

Devaluation

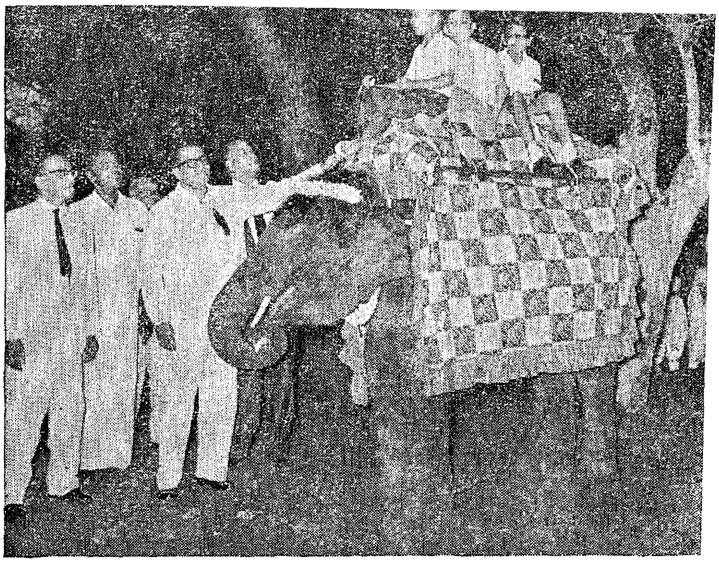
What would be the consequences of this step ? It would enable us to remove a number of taxes on imports because automatically the importer will pay a higher rupee price and the Government will not have the ignominy of 'taxing'. (The excess rupees he pays will still be available to the public as the R.B.I. will collect it.) Our exporters can automatically compete better since his exports will be cheaper in the foreign markets. The foreign exchange drain on account of remittances will go down. The tendency to keep foreign exchange abroad will be less. Gold smuggling itself be reduced. The scope for administrative corruption will be considerably lessened since import controls will be simplified.

This last step will be possible particularly if we take note of the fact that aid-giving bodies have noted the inadequacy of our efforts to increase foreign exchange earnings and recommended such measures. More aid is likely to come in as a result and the economy can ascend to a new level of boom.

Will the proposal increase the cost of living in the country ? Food comprises 60 to 65 per cent of the working man's budget. The impact on this will be practically nil inasmuch as we can subsidise imported wheat and rice through the increased rupees we earn to the public exchequer. So far as the bulk of the food supply in the country is concerned, it is met from our own production. The cost of this will not be affected. The costs of commodities like kerosene oil, diesel, petrol have a considerably larger component of excise duties than import value in them. Steps can therefore be taken to peg their prices by suitable adjustment of excises. It is only the cost of second priority goods like air-conditioners, high quality cotton clothing, refrigerators, automobiles which will go up. This will have little impact on the working man's cost of living.

No foreign pressure

Will the cost of capital projects go up ? To the extent that imports figures, they will but the increase has already come partly through import duties and or insistence on purchasing Indian produced equipment. The latter costs even now 40 to 60 per cent more than foreign goods. Were capital projects are based mostly on Indian production, the effect will be small.



Sri N.S. S. Manradiar, Minister for Co-operation, inaugurated the Joyride for children on elephant 'Sivaraj' at the Children's Corner at the Guindy Park, Madras on 21st June 1966.

One difficulty which is anticipated in some quarters is that the debit liabilities will increases in rupee terms. We have already seen that the liabilities during the Plan period would amount to about Rs. 1,400 crores at present foreign exchange rates. If the rates are changed, say by 40 per cent, the rupee resources to be raised by Government will be more by Rs. 560 crores. As against this the export earnings and aid from abroad which are received by Government first and then sold for rupees to various agencies in India will fetch more rupees. Suppose the earnings are at present estimated at Rs. 4,000 crores. This will fetch at new rates Rs. 800 crores more to the R.B.I. In the ultimate analysis therefore, the problem of debt serving is obviated.

There is a feeling that we are taking recourse to this because of foreign pressure. Actually, the size of the imbalance makes it necessary all the more if we are not to get any more aid. The fact that what is good for us is recommended by others does not make it any less desirable. Yugoslavia which is as nationalist a country underwent an economic readjustment of this kind about a year back on the recommendations of the I.M.F. It has gained considerably. It is of course a fact that this measure enables the immediate acquisition of a sufficiently high order of additional aid from I.M.F./World Bank. This will in itself help to offset such bad effects as there may be in the short run. There will be a sufficient inflow of additional goods, better production, a fuller utilisation of our industrial capacity and a general relaxation of detailed controls which will create a new climate of dynamic economic activity in the country.

NATIONAL SAVINGS CERTIFICATES

(First Issue)

A SAFE AND PROFITABLE INVESTMENT

IN DENOMINATIONS OF

Rs.10 100 1,000

YIELDING AFTER 10 YEARS

18 180 1,800

AVAILABLE AT POST OFFICES

A NEW SERIES

NATIONAL SAVINGS CERTIFICATES

(FIRST ISSUE)

BANK SERIES

WITH SAME BENEFITS

AVAILABLE AT BRANCHES OF

STATE BANK OF INDIA & ITS SUBSIDIARIES

DA 66/156

NATIONAL SAVINGS ORGANIZATION

Devaluation in India and Abroad

Is devaluation a sign of defeat in a country's struggle for economic development and self-reliance ?

An affirmative answer might be suggested by the example of some countries which have achieved remarkable economic growth in recent years. The United States dollar has looked every other currency in the face. The external value of the Japanese yen has remained unchanged for thirteen years. The change in the par value of the German mark in 1961 was a change upward —to 25 U.S. cents per mark from the earlier rate of 23·8 cents.

These examples might suggest a necessary connection between stability of the exchange rate and economic growth. But there is in fact no necessary connection.

Higher rate of growth

A country which has reduced the external value of its currency might well achieve a higher rate of growth than another country, at the same stage of economic development, which maintains its exchange rate. Take India and Pakistan. India devalued the rupee in relation to the dollar soon after independence, in September 1949. At that time Pakistan considered and rejected the option of doing likewise. It was only in July 1955 that Pakistan devalued its rupee to make it equivalent to 21 U.S. cents. This was the value, in terms of the U.S. dollar, to which the Indian rupee had been reduced six years earlier.

Let us see what the relative performance of India and Pakistan was like during these six years.

According to the Statistical Year Book of the United Nations, the index number of India's national product at constant prices, with 1958 as the base at one hundred, was 76 in 1950. It stood at 90 in 1955. In other words, the national product rose by 18·42 per cent in the six years following the devaluation of the Indian rupee. According to the same Year Book, the index of Pakistan's national product was 85 in 1950, and 92 in 1955. In other words, the national product rose by only 8·23 per cent over the six years during which Pakistan did not devalue.

It was Britain's decision to devalue the pound sterling in 1949 which led to the devaluation of the rupee. As Jawaharlal Nehru said at the time in a nation-wide broadcast, parallel action by India was necessary in order to maintain our exports—most of which went to the sterling area. He pointed out that, in addition, a revision of the dollar-rupee ratio would help to stimulate our exports to hard currency countries.

Britain, like India, achieved a steady rate of economic growth after devaluation. The index figure of Britain's national product rose from 86 in 1950 to 98 in 1955, and has since maintained the upward trend. A large number of West European countries also devalued their currencies in 1949, in line with the pound sterling. Their economies, too, have been on the upswing ever since.

Another notable example of exchange reform is the devaluation of the French franc in December 1958. The reform was effected by General de Gaulle, who has become the symbol of the political and economic resurgence of France after the second world war.

Example of France

Prior to the devaluation of the franc, successive French Governments had attempted to correct the disequilibrium in the balance of payments by various measures short of devaluation. For example, there was a *de facto* devaluation of the franc in August 1957. This was known as "Operation 20 per cent". It was so called because a surcharge of 20 per cent was levied on a wide range of imports, while exporters were given a bonus of 20 per cent on the value of their sales abroad. Similarly, a special tourist exchange rate with 20 per cent discount was introduced., while French tourists going abroad had to pay 20 per cent premium to secure foreign exchange. " Operation 20 per cent " proved inadequate to combat inflation. It did not restore budgetary equilibrium despite foreign credits amounting to 655 million dollars which France secured early in 1958. Nor was the position significantly improved by the National Gold Loan, launched by Gen. de Gaulle as one of the first acts of the new Government in June 1958. These alternatives to devaluation which France tried are rather similar to our own Gold Bonds Scheme, increased duties on imports, and export subsidies. In France, as in India now, these alternatives to devaluation were found inadequate.

Eventually when Gen. de Gaulle decided on devaluation, the package of measures of which it formed a part was again similar to what our Finance Minister announced on June 5. France lifted quantitative restrictions on 90 per cent of imports from fellow-members of the Organisation for European Economic Co-operation, and liberalised 50 per cent of imports

from the dollar area. The exchange reform undertaken by France induced friendly countries to extend substantial stand by credits.

After the devaluation of December 1958, the French economy has never looked back. The foreign exchange reserves of France went up from about a billion dollars in 1958 to more than six billion dollars by the end of 1965.

Yugoslavia

Another country—and it is a socialist country—which has found devaluation a valuable tool for certain jobs of economic repair is Yugoslavia.

That country found itself in difficulty in 1951 on account of high domestic prices. The situation was aggravated by the economic pressure to which Yugoslavia had been subjected by countries of the Cominform since 1948. Marshal Tito's Government found it necessary to bring the exchange rate of the dinar in line with the ratio between domestic and world prices. The dinar was therefore devalued in January 1952. The new rate was 300 dinars per U.S. dollar, as against the old rate of 50 dinars. Yugoslavia effected another exchange reform in December 1960. A uniform exchange rate of 750 dinars per U.S. dollar was established in place of the multiple rate system which had developed over the years. These multiple rates had ranged from the official exchange value of 300 dinars per U.S. dollar to as much as 1,500 dinars for the export of certain commodities. More recently, in July last year, Yugoslavia found it necessary to devalue the currency further to 1,250 dinars per U. S. dollar. Simultaneously with these reforms, Yugoslavia abolished Government subsidies for export enterprises, and relaxed the complicated administrative controls under which foreign trade had been conducted. The reforms were assisted by foreign credits from the International Monetary Fund and other sources.

Same pattern

It will be noticed that the pattern of devaluation and related measures was the same in Yugoslavia as in France in 1958, that is, abolition of artificial subsidies for exports, liberalisation of controls over foreign trade, and assistance from friendly countries and banking institutions to smoothen the transition to a new, realistic and stable basis for the further development of the economy. This is also the pattern of reform envisaged by us in India today, with the expectation of substantial aid from the World bank, the International Development Association and other members of the Aid India Consortium.

Though foreign aid helps to smoothen the transition, devaluation is essentially a move away from dependence on foreign aid. It is a move towards self-reliance by strengthening the competitive power of a country's exports in the world market. Devaluation can succeed in this objective only if it is accompanied by a high degree of internal economic discipline. In Yugoslavia, for instance, the improvement of productivity and economy in administration were undertaken as the primary national tasks in order to contain the tendency for internal prices to rise in the wake of devaluation.

Even the Soviet Union, whose trade transactions with other countries are essentially in the nature of barter, has devalued its currrency in order to increase invisible earnings. From 1950, when the value of the rouble was fixed on a gold basis, the official exchange rate was four roubles to the U.S. dollar. In March 1957 it was announced that premiums ranging up to 150 per cent would be paid on conversions of specified foreign currencies into roubles. The premiums were offered on conversions by tourists and other visitors, as well as on transactions of a non-commercial character such as rouble purchases by foreign embassies and foreign correspondents. The 29 foreign currencies which were specified included the pound sterling and the U.S. dollar.

Soviet Union

On the 1st of January 1961, a new 'heavy' rouble was introduced, which exchanged internally for 10 old roubles. However, the external value of this new rouble in terms of gold was reduced. It was fixed at only 987 milligrams, not at ten times the previous value of 222 milligrams.

We have seen that many countries have been able to strengthen their economy following devaluation of the currency. But it is not as if devaluation is a guaranteed remedy, by itself, for a country's balance of payments difficulties. To create the basis for a resurgence of production and of epxorts on a new and realistic basis, it is necessary that there should be political stability as well as prudent and careful management of the budget.

Indonesia is an example of a country where devaluation has not helped to improve the economy. Following the restoration of Indonesian freedom in December 1949, the Indonesian rupiah was first devalued in February 1952. From the rate of 11·4 rupiahs per U.S. dollar, the exchange rate was brought down to 31·72 rupiahs. Along with the devaluation, the Government abolished the earlier system of issuing foreign exchange certificates against exports, and allowing imports on the sale of the certificates—a system somewhat similar to the import entitlement scheme which we in India have now scrapped. Again, as we have now done, Indonesia levied additional duties on exports. It was also decided to subsidise rice imports so as to prevent an increase in the price of essential commodities. This was a sound package of

reforms. But it failed to stabilise the Indonesian economy. Heavy military expenditure and other non-productive spending over the years eroded the value of the Indonesian rupiah. Inflation became so rampant that in the latest devaluation of the rupiah, in December last, the exchange rate was brought down to 10,000 rupiahs for one U.S. dollar. There was no question of any standby credit from the International Monetary Fund. Indonesia had withdrawn from the Fund in August, following its walk-out from the United Nations in January 1965.

To the question, then, whether devaluation means defeat in the struggle for economic development, the answer is obviously, not necessarily so at all. Devaluation can, on the contrary, create the basis for conquering economic difficulties and becoming self-reliant. The question is really: Will the present devaluation of the rupee help the Indian economy to move forward, as happened after the devaluation of 1949 and as happened in Britain, France and Yugoslavia whose examples we have surveyed? Or will devaluation, as happened in Indonesia, make no difference to spiralling inflation?

Given India's political stability, the determination to channelise both public and private expenditure into productive fields, and the international goodwill and assistance available to us, there can be no doubt about the answer.

GENERAL P. P. KUMARAMANGALAM, DSO

Lt.-Gen. P. P. Kumaramangalam, took over on June 8th 1966, as the Chief of the Army Staff in the rank of General. He succeeds General J. N. Chaudhuri, who, on retirement, has been appointed India's High Commissioner in Canada.

Lt.-Gen. Paramasiva Prabhakar Kumaramangalam, Vice Chief of the Army Staff, who has taken over as Chief of the Army Staff (on June 8th 1966) in the rank of General, was born on July 1, 1913. After his early education at Eton and graduation from Wollwich, he was commissioned into the Regiment of Artillery of the Indian Army on August 29, 1933. He was the second Indian officer to be commissioned into the Regiment.

He took part in the operations in the Middle East in World War II, as a Major and was awarded the Distinguished Service Order for an action in Libya on May 27, 1942. He was then serving with the Third Indian Motor Brigade.

He was taken a prisoner of war in Italy in 1942. He escaped from the enemy hands but was later imprisoned again in Germany. He returned to India after release in 1945. Between 1945 and 1947 he Commanded the Ninth Independent Heavy Anti-Air craft Regiment and later the Twelfth Independent field Regiment.

He was made a Brigadier in July 1948 and was appointed Commandant of the Artillery School at Deolali. In January 1949 he was appointed Director of Artillery at Army Headquarters and later the same year he again commanded the Artillery School at Deolali. In August 1950 he became Brigadier Artillery HQ Western Command. In December 1950 he was appointed Director of Artillery at Army Headquarters. In 1955 he commanded an Independent Para Brigade.

In September 1956 he was promoted as Major General and took over command of an Infantry Division. In 1959 he was appointed Commandant, Defence Services Staff College, Wellington. He returned to Army Headquarters as Adjutant General in the rank of Lieutenant-General in October 1959.

Lt.-Gen. Kumaramangalam took over as GOC-In-C, Eastern Command in May 1963. In November 1964 he was appointed Deputy Chief of the Army Staff and on January 15, 1965, he became Vice Chief of the Army Staff.

General Kumaramangalam is a keen Polo player and cricketer. He is a member of the M.C.C. and also a Fellow of the Royal Horticultural Society. In the early days when the Regiment of Artillery had not been mechanised, General Kumaramangalam was a keen show jumber. He is very fond of horses and dogs.

Devaluation: Questions and Answers

1. *Will a devaluation reduce India's international prestige?*

No. The exchange rate is simply the price of foreign exchange; and, like all prices, this price also should be set at an appropriate level so as to facilitate proper allocations of national resources. No consideration of national pride or prestige should be involved in fixing a price to serve national objectives.

Countries which have devalued in recent years with great advantage include France and Yugoslavia. Japan's striking economic performance in recent years and in the past is in large part due to the maintenance of a low external value for the yen.

It is arguable that what has really hurt India's prestige is the complicated *de facto* devaluation of recent years and the premia quoted in India and abroad under import entitlement and similar schemes. All this has left the impression that the Indian authorities have lost their political and administrative grip over the situation. What is needed to restore prestige is to introduce a reasonable exchange rate and then to maintain it.

Export benefits

2. *In what way will devaluation help India's export and benefit the foreign exchange position?*

With the current level of prices in India, without a formal devaluation, it would not be possible to maintain our present export earnings. This is the crux of the matter. It is only through partial devaluation that we were even able to export at the Rs. 800 crore level. We were giving subsidies not only to engineering goods but even to cotton textiles, and ores and for that matter to tea and jute goods. On a traditional item like textiles the subsidy was 30 to 40 per cent. These subsidies violate the G.A.T.T. rules, and other countries are entitled to retaliate. If we withdrew these subsidies, exports might fall to Rs. 700 crores or even less and exports over the Fourth Plan might be only say Rs. 3,500 crores as against the target of Rs. 5,100 crores. If our export effort were to be so poor we could not expect to get foreign aid of Rs. 4,000 to Rs, 4,800 crores. Thus we could not have any Plan to speak of.

On the other hand there is every reason to believe that if we assist exports on a wide front through a change we can achieve and indeed exceed the target of Rs, 5,100 crores. We simply could not hope to do this through the system of export incentives in existence before devaluation. As such incentives are not believed to be permanent, manufacturers and exporters do not make the necessary long-term effort, and results achieved are poor in relation to the subsidy given. The incentives are selective in an arbitrary way, and do not conduce to the promotion of those exports which are likely to succeed in the long run. The system is inefficient and demoralises the administration, it results in confusion of principles and inefficiency or worse at lower administrative levels. Import entitlements can also subsidies exports only so long as imports of every essential goods are severely restricted. It is only then that import entitlements can be sold at a substantial profit—profit which can then be used to cover the loss on exports. But we cannot restrict even essential imports severely for all time. Nor can we permit less essential imports to come in against entitlements. Thus this particular scheme cannot be relied upon on a continuing basis.

Effect of devaluation

The effect of devaluation on export earning will be even more pronounced as time goes on. This is so because devaluation would increase the profitability of export industries and thus encourage larger investments in these industries. In this sense, devaluation is an essential pre-condition for securing a sustained increase in export earnings, which would make for greater self-reliance. The problem, in other words, has to be looked at both in its short-term and long-term aspects.

There would be certain and definite gain in respect of repatriation of profits, capital, royalty payments, etc., in respect of private foreign investment. Private foreign investors who have earned substancial profits as a result of scarcity are able to remit their profits at the present over valued rate. A firm which makes a profit of Rs. 4·75 today is able to remit one dollar at present. After devaluation the same remittance of one dollar will require profits to be as high as Rs. 7·5. Thus, the foreign exchange drain arising from this source will automatically go down. The saving in foreign exchange on this account can be of the order of Rs. 15 to 20 crores; and over time, the saving would be even greater as more and more private foreign investment takes place.

The other gain would be in respect of bringing into the official channel at least part of the transactions which are at present conducted illegally through unofficial markets. For example, travellers' cheques

which are at present sold in the black market will be sold to the banks to a greater extent after devaluation, thus strengthening official reserves. The same would be true in respect of remittances sent by our nationals The tendency on the part of exporters and importers to build up foreign exchange balances abroad would also go down.

Gold smuggling will also decline to some extent. This is so because the margin between the internal price of gold and external price of gold will get drastically reduced so that the profits made on smuggling will get reduced also. It may be that the internal price of gold will rise in response to devaluation. But the higher price in turn will reduce the demand for gold so that the total quantity smuggled would decline to some extent in any case.

As regards imports, it is true that devaluation will not reduce the level of imports as it is already being controlled rigidly today. Indeed, it is not desirable that the level of imports should go down. However, to the extent that devaluation increases the cost of imports, it will reduce the high profits being made by importers today, profits which often go unrecorded for income-tax and other legal purposes.

Over time, devaluation would also give stronger and more sustained stimulus to import substitution. At present, inspite of import restrictions and high custom duties, there is a tendency to prefer imported goods to what may be available domestically. Apart from this, the profitability of domestic industries competing with imports will increases so that over time, more investment will take place in import substituting activities.

A kind of tax

Basically, devaluation is a kind of tax on those who spend foreign exchange and a subsidy to those who earn foreign exchange. In our situation, where we have to do everyting possible to increase foreign exchange earnings and to reduce foreign exchange outgo, a tax on those who spend foreign exchange for the benefit of those who earn it, is obviously desirable.

With sufficient foreign aid forthcoming, it will be possible to liberalize imports so as to meet in a substantial measure the maintenance needs of the economy. To the extent that the cost of imports will go up, as a result of devaluation, it will become unnecessary then to rely on detailed scrutiny for allocation of imports. This would make for speedier decisions regarding imports and greater competition among domestic producers leading to higher efficiency.

3. *Why could we not have continued to meet our difficulties on the basis of the selective measures that we have already adopted in the past ?*

We could not continue to rely on the kind of measures we had been adopting for the simple reason that they had not succeeded. As long as the depreciation in the value of the rupee is marginal, it can be taken care of by marginal subsidies to exporters and marginal increases in custom duties. But when the depreciation goes as far as it has gone in our case, more and more subsidies and higher and higher custom duties become necessary. Frequent changes in duties and subsidies are not easy and they do not provide a stable environment for investment decisions. A time comes when it makes more sense to formally recognise that the value of the rupee is no longer what it was, so that exporters and importers know denifinitely what they can expect over at least the next 10 or 15 years and make their decisions accordingly.

The policies we have pursued have also opened the door to many abuses and these abuses would grow if these policies were extended even further. Thus, if the National Defence Remittance Scheme was continued, more export earnings would have been retained abroad and remitted through the N.D.R. Scheme.

Foreign investment

In any extent, private foreign investors would have continued to enjoy the unearned advantage they enjoyed before devaluation at the expense of the country's foreign exchange reserves. Theoretically, one could also levy a tax on invisibles including remittances of profits, remittances for students and the like. But a tax which falls only on foreigners would have been resented and regarded as discriminatory. It is much better and certainly more acceptable to achieve the same effect through a change in the exchange rate.

From the point of view of new private foreign investors devaluation makes more sense than an increase in custom duties. This is so because a foreign investor who brings equipment or money from outside does not have to pay more in rupees as a result of devaluation. On the other hand, if custom duties are increased, he has to pay more in rupees, even though he may be bringing all the equipment on his own without asking us for any foreign exchange. Thus our present policies have definitely deterred new private foreign investment whereas it has benefited unduly those private foreign investors who are already in the country and who are making large profits. What is true of new foreign investors is also true of projects under implementation for which foreign exchange arrangements have already been made. An increase in customs duties requires such continuing projects to make fresh arrangements for raising additional rupees and this inevitably delays their implementation. No such delay will be caused in the event of devaluation.

There was another important consideration. There was a wide-spread belief among international agencies and among the international banking and trading community, that the par value of the rupee befor

devaluation was totally unrealistic. This exposed us to lack of confidence and speculation. It also made t almost impossible for us to count on further assistance from these international agencies. In this atmosphere of lack of confidence and with a precarious position of our balance of payments, our difficulties were compounded when we could not even count on international support for meeting our genuine difficulties which will remain, in any case, for some time to come. The vicious circle had to be broken by recognizing the reality of the situation.

Why devaluation ?

4. *Why has a devaluation become necessary* ?

Basically, devaluation has become necessary because the price level has risen and our exports are becoming uncompetitive in world market. Our cotton textile exports are uncompetitive because cotton prices and wages have gone up. The rise in prices has been in part the result of deliberate policy. We have fixed higher prices for agricultural products to stimulate production. There can be no question of drastically lowering prices through deflation simply to maintain the present exchange rate; we would in that event sacrifice all hopes of growth. Even if we were prepared to sacrifice future growth, we cannot restore a much lower price level as it would require wages and all other incomes to be lowered also.

Development requires more imports and hence more exports; we can certainly take aid for some years, but this must be transitional. A steady and rapid increase in exports is facilitated by a change in the exchange rate; this is the means of diverting resources to the activities generating foreign exchange. There is no virtue in sustaining the present rate at the cost of stagnant production and exports. French and Japanese experience has shown how a rate change can promote vigorous growth.

During the heyday of the national struggle for independence in the early thirties, our political leaders and economists rightly blamed the British for fixing a high rate of 1 sh.-6 d. for the Indian rupee rather than the lower rate of 1 sh.-4 d. We rightly feared that the higher rate our industrialisation would suffer as our industries would have to face stiffer competition from British products. This is equally true today.

5. *Is there not an alternative solution which will stimulate accounts accurately* ?

It may be possible to devise alternative scheme, such as floating multiple rates, which will secure *de facto* devaluation with greater efficiency than the present export incentive schemes such schemes, however, involve organised markets in which exchange is traded nad it is very likely that the rupee will be far more depreciated in such markets than is really necessary. A floating rate may well reduce trade with EastEurope or alternatively rest in the East European currencies being quoted at a discount in relation to convertible currencies. There will be similar problems with regard to absorption of American aid. A floating rate would also cause uncertainty for exporters and importers and would keep alive speculation about when and at what level we might finally fix a new parity. The experience of Latin American countries has shown that floating rates are very unsatisfactory for more than a short period. We have no need to try such an experiment, for we have the ability to maintain a fixed par value.

6. *Will a devaluation raise prices* ?

There is no reason why there should be a rise in the cost of living of the lower income groups. Most of the articles they consume have very little import content. We have also decided to neutralise the effect of devaluation on the prices of imported food, fertilizers and kerosene.

It should also be remembered that many imported products in short supply are being sold at very high prices already, and that the importers are making windfall profits; the result of devaluation will be that these wind fall profits will be reduced to some extent so that a part of the increase in import costs will be absorbed by present high profit margins.

Simultaneous steps

We are also taking steps simultaneously to increase imports of essential raw materials and components particularly where there has been lay-offs and unutilized capacity. This would mean larger supplies, reduction in costs as a result of fuller utilization of capacity and more competition. This would offset the higher cost of imports in most consumer industries which have only a small import content.

People can, of course, raise prices, even when unwarranted, by hoarding and profiteering. Steps are being taken to prevent this.

Undoubtedly, care, has to be taken to make sure that even a small rise in prices does not set off further cumulative price rises. That is why, if devaluation is to succeed to the maximum possible extent, it has to be accompanied by even greater fiscal and monetary discipline and restraint on excessive increases in wages. Such a discipline is necessary, in any case, if the process of inflation of which we have been a victim for the last 10 years and which has necessitated devaluation now, has to be brought to an end. There is no denying the fact that even devaluation can at best be a cure for pas inflation and not for future inflation.

7. *Will not devaluation cause an undue rise in the prices of essential raw materials* ?

Some increases in the prices of essential materials are necessary to promote import substitution, particularly in key sectors like machine building and metals. The

present import restrictions have in fact often resulted in *de facto* price increases larger than would be necessary with devaluation and liberalised imports; such randum price increases have not however provided a basis for rational import substitution. Larger supplies of imports on the basis of a rational exchange rate and duties would raise industrial production, without endangering our import substitution programme. The simplification of import controls will be of special benefit to small scale industries, which have because of lack of information, suffered most under the present system.

8. *Will not a devaluation worsen the terms of trade ?*

No. The terms of trace are the ratio of the prices of our exports and imports *in foreign currencies.* There is no reason why prices of imports in foreign exchange should change as a result of devaluation. As for export prices in foreign exchange, here again, most of our exports account for only a small part of world trade so that the foreign exchange price of exports is given to us. In case where some reduction in the prices of our exports in foreign currencies is necessary to sell more, the reduction is inevitable whether the export promotion method adopted is devaluation, rupee subsidies or export incentives. In the case of commodities like tea and jute where we supply a large part of the world market and where demand abroad is inelastic, we have taken care to impose export duties to prevent an unwarranted fall in export prices without eliminating altogether the incentives for modernisation,, research for developing new markets and the like.

Foreign debt

9. *Will not a devaluation increase the cost of servicing foreign debt ?*

The cost *in foreign currency* of servicing official foreign debts will not change. The rupee cost will go up, and create a budgetary problem. As against this, the support to the budget provided by new aid may be larger. For the next few years, as a result of higher aid, there may be some gain to the budget on balance.

The foreign exchange cost of servicing private equity investment will be reduced by devaluation, as any given level of profit and capital remittances in rupees will have a lower foreign exchange value. Further, devaluation will reduce windfall profits and hence diminish even the rupee value of these remittances.

10. *Will not devaluation deter private investment ?*

Virtually all imports of equipment are covered by foreign exchange loans or equity, the value of which in terms of rupees will rise. Projects in hand will not therefore suffer. Nor is there any reason to believe that there will be any shortage of worthwhile new projects to be undertaken. Devaluation will ensure that such new projects are economic, in the past wasteful projects have been taken up, particularly in the private sector, because of irrigational blanket protection.

Necessary encouragement can be given to the priority sectors through public sector investments, tariffs, and support from financial institutions.

11. *Will not devaluation mean that the resources available for the plan will go down so that the size of the plan will have to be cut in real terms ?*

This is certainly not the case. It is true that the rupee cost of imported equipment will go up. At the same time, practically all the equipment we import today is obtained against aid or private foreign investment. The rupee value of the aid or the investment will also go up automatically and will match the increase in the rupee cost of the equipment.

Budgetary position

Devaluation does affect the budgetary position in many ways, as, for example, through adjustments in custom duties, excise duties, export taxes, etc. The rupee value of the debt service charges on foreign debt will also be increased by devaluation. However, at present, a substantial part of the non-project aid that we get is first received by the Government and the foreign exchange available under the aid is sold to private importers. The rupees realised by selling the foreign exchange made available through aid will also increase automatically with devaluation. On balance, the budgetary position should not deteriorate at all as a result of devaluation if care is taken not to reduce the revenue that we are getting at present through custom duties. This is, in any case, desirable if all possible stimulus is to be given to import substitution. In short, it is necessary to retain by and large the present custom duties even after devaluation. On this basis, the resources position for the Plan will not be adversely affected by devaluation. Indeed, to the extent larger aid is received the prospect of a bigger public sector plan will improve.

12. *Why have we acted now ? Could we not postpone the action by a few months ?*

Our foreign exchange position at present is so difficult that unless aid begins to flow soon in adequate quantities, there is every danger of the economy receiving a serious setback. Already, import restrictions are hurting industrial production very badly. The index of industrial production which had shown an improvement of 11 per cent in the first quarter of 1965 over the corresponding period of a year earlier has shown scarcely an increase during the latter part of the year, and over the whole year industrial production has risen only 4 per cent. Also, without substantial imports of fertilizers immediately on the basis of aid, our agricultural programmes will not get going. With stagnant agriculture

internal inflation may get out of hand. The commitments ahead of us for debt repayments are also heavy. Aid already in pipeline is much smaller. Altogether, therefore, action was urgently called for.

Only solution

In any event, without the devaluation, our own export effort might have got increasingly bogged down and more and more of our earnings might have got diverted to unofficial channels. Thus, even if we leave out aid, we would have found it increasingly difficult to deal with our balance of payments problems by persisting with our present policies and this would become even more evident as time goes on. Devaluation would appear to be even more urgently called for if we took a pessimistic view of aid prospects.

Lastly, action could not be postponed as all further aid negotiations hinged on it. It is extremely doubtful whether without demonstrable evidence of our determination and capacity to push up our exports and improve the external viability of our economy, we shall continue to get external credits, particularly as we are already at a stage when we have to incur fresh debt in order to pay off old ones. Without reasonable prospects of aid forthcoming on the scale contemplated by us, the finalisation of the Fourth Plan will be still further postponed. A truncated plan, without aid or aid in much smaller amount will not meet the requirements of the situation and enable us to deal with our deeprooted economic problems satisfactorily. Even if it were possible to accept much greater burden of resource mobilization internally, the shortage of foreign exchange will continue to constrain development and retard the growth of the economy. If there is no tangible evidence of satisfactory progress or the long range goals are sacrificed in favour of short term gains, piling up greater problems for the future, it may bring discredit to the concept of planning development within the framework of democratic institutions, an experiment on the success of which India's internal stability and confidence and external influence and prestige greatly depends.

Moreover, merely putting off a decision on devaluation now would not have changed our economic position. We would in all likelihood find ourselves later in a very invidious position and with poorer bargaining strength.

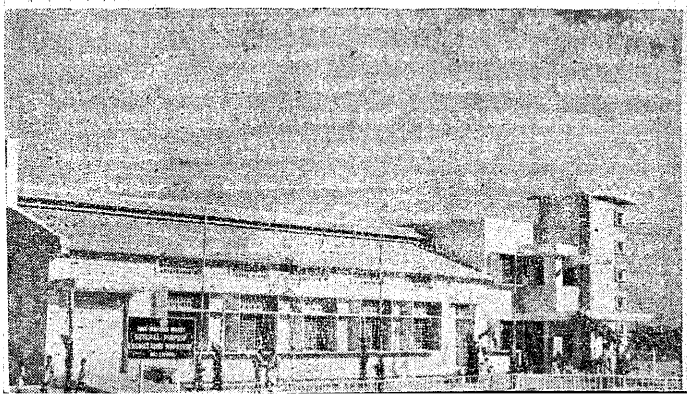
Now that the decision has been taken we are confident that we will be able to move swiftly on many fronts.

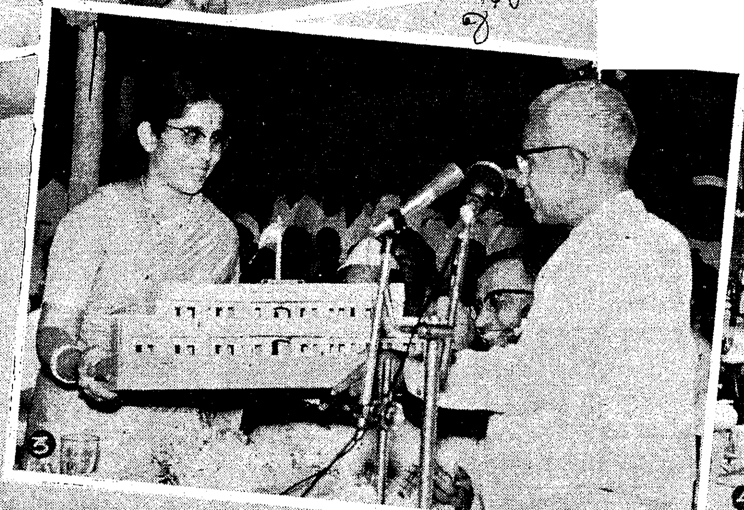
THE CHEYYAR CONFERENCE

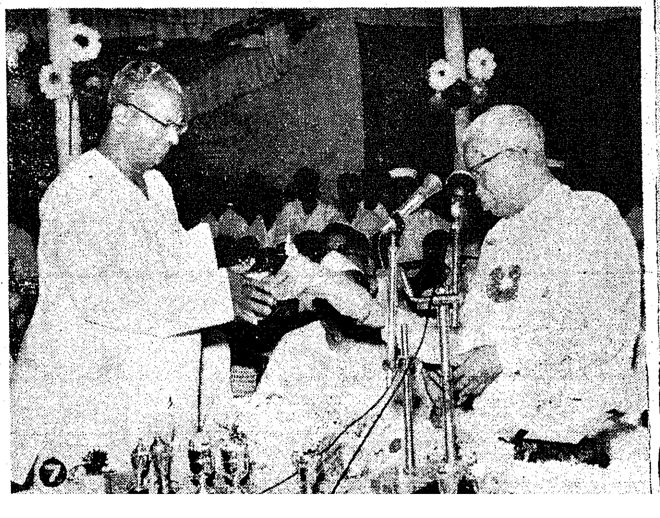
The Chief Minister Sri M. Bhaktavatsalam presided over the North Arcot District-level School Improvement Conference held at Cheyyar on 20th June 1966 and inaugurated the Government scheme of free books and slates to Children.

1. A view of the gathering.
2 & 6. The Chief Minister going round the exhibition organised on the occasion.
3. Headmistress Balambal, Arani Girls' High School, is presenting to the Chief Minister a model of the Building donated by Srimathi Geevaratna Ammal.
4. Materials donated for school improvement.
5. Chief Minister distributing free books and slates to the Children.
7. Sri Vinayaga Mudaliar, Vellore, presenting a purse of Rs. 15,000 to Chief Minister for school improvement.

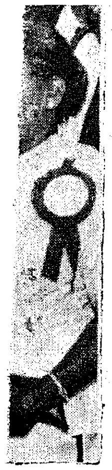
Sri M. Bhaktavatsalam, Chief Minister inaugurated the General Purpose Engineering Workshop at Valliyoor, Tirunelveli District on 9th June 1966. He is seen in the picture inspecting the workshop. A view of the workshop also is seen in the picture.



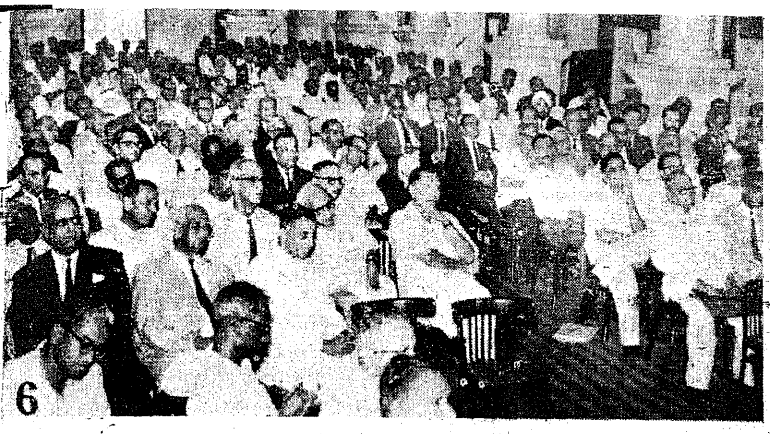


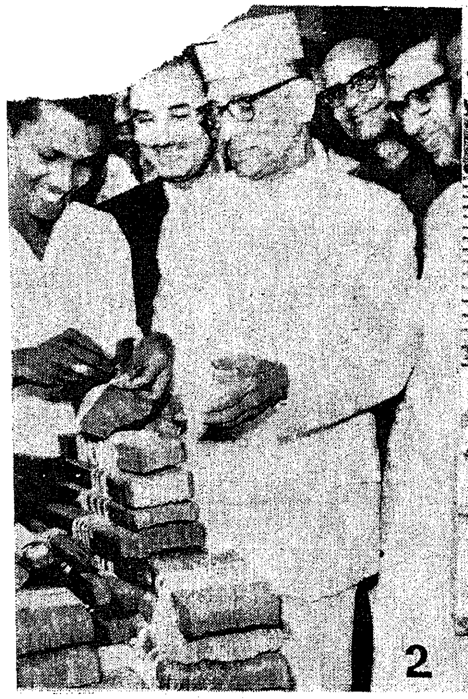


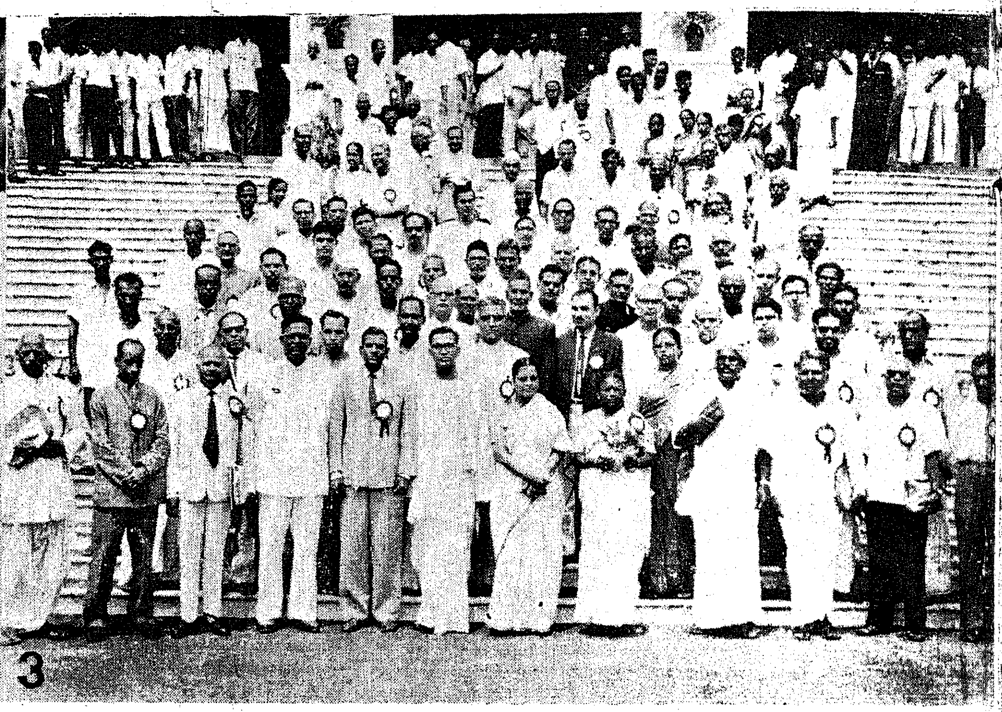
*Please see
facing page.*

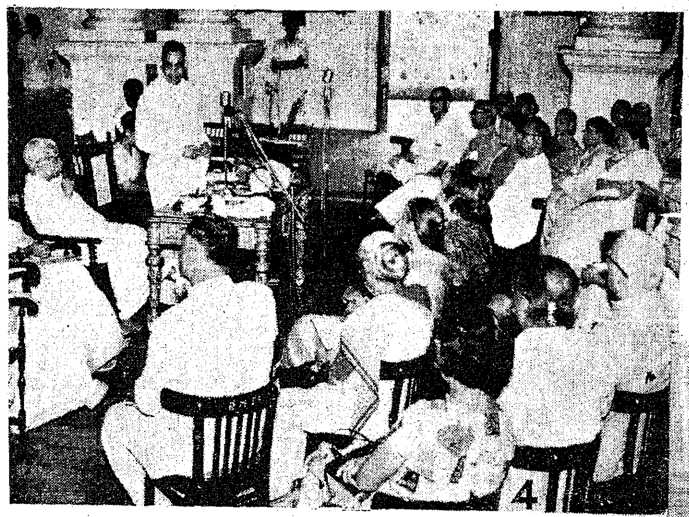


Conferences in the CITY

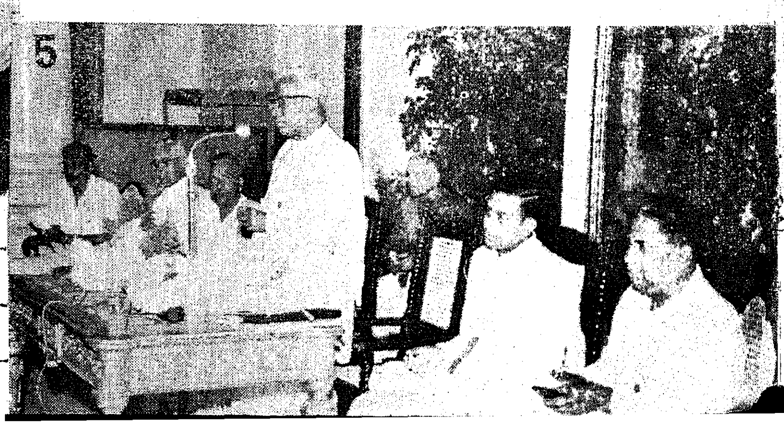








1. Srimathi Jothi Vencatachellum, Minister for Public Health, who inaugurated the Eleventh Session of the Council of State Boards and Faculties of Indian Medicine, is being received on her arrival.
2. Sri M. A. Manickavelu, Chairman, Madras Legislative Council, who inaugurated the exhibition of Palm leaf manuscripts on the occasion, is witnessing the manuscripts.
3. The Minister for Public Health with the delegates to conference.
4. Dr. V. K. R. V. Rao, Member, Planning Commission, addressing the members of the Southern Regional Seminar on Parent Teacher Co-operation at Rajaji Hall, Madras.
5. Conference of the Madras State Municipal Chairmen and Municipal Commissioners was inaugurated by the Chief Minister. Sri S. M. A. Majid, Minister for Local Administration is to the left of the Chief Minister.



6, 7 & 12. Sri Sachindra Chaudri, Union Finance Minister, is addressing a gathering of Industrialists, Bankers, etc., on Devalution at a meeting held at Rajaji Hall and in Council Hall. Sri C. Subramaniam, Union Food Minister, also took part in the discussion.

8 & 9. The Conference of Heads of Maths was inaugurated by Sri M. Bhaktavatsalam at the P. S. High School, Mylapore, on 13th June 1966. The Heads of Maths of Tamilnad took part in the Conference.

10 & 11. Sri M. C. Chagla, Union Education

V

260

Steps Towards Higher Agricultural Production

M. S. SIVARAMAN, I.C.S. (Retd.).

The author, a retired civil servant, was till recently in the service of Madras Government. He is an expert in Agriculture. The speech delivered by him at Sri Ramakrishna Mission Vidyalaya, Coimbatore, is reproduced here.

In planning for increased agricultural production, we have to take note of the past trends and the timehonoured agricultural practices which have been evolved through experience. Production and use of organic manures on a large scale can help to a large extent in augmenting the output of food.

In discussing planned efforts to improve production, we have to be clear in our minds about the past trends. Often it has been claimed that the production of food-grains has gone up by 3½ per cent every year during the first two plan periods and that in the third, abnormal weather conditions have suppressed this rise. But can a rising graph of 3½ per cent every year for 10 years irrespective of the weather, be flattened out of all a sudden in the next three years ? No doubt the reported production of foodgrains in the base year 1949-50 was 57·6 million tons. The production in 1960-61 was 79·7 million tons and the increase therefore arithmetically would work out to about 3½ per cent. But was the starting production only 57·6 million tons.

Achievements in first decade

The production at the beginning of the first plan was calculated on an area of 245 million acres under foodgrains and this has gone up by 35 million acres by 1960-61 mainly because of rectification of statistical omission in reporting. In the earlier years, the crop yields were estimated visually, but later random crop sampling replaced this method. The total foodgrain in a year is the sum total of the products of the area and the yield per unit area of different crops and in view of the non-comparability of these two essential elements, it may not be correct to rely entirely on the published figures for the base year, for projecting future trends. A more accurate method of gauging this may be to relate it to an estimated production derived after deductin the possible addition through our efforts.

The outcome of the main programmes in agricultur in the first decade of planning can be briefly summed up as—

(i) an increase of about 11 million acres in the irrigated cropped area under food crops,

(ii) an increase in the consumption of fertilisers of about 6 lakhs tons in terms of ammonium sulphate,

(iii) a larger area under improved seeds: the coverage was about 55 million acres in 1961, and

(iv) extension of the green manured area from less than 2 to 10 million acres.

Some of these inputs of production were obviously used for cash crops; even otherwise their impact would not have resulted in an additional production of more than 7 million tons of foodgrains on the basis of accepted yardsticks of production. Taking this even higher at 10 million tons and working backwards from the productive level of 79·7 million tons in 1961, the production at the commencement of the first plan would have been about 70 million tons. If 70 million tons have gone up by about ten million tons in 10 years and about eight million tons in 13 years. the average increase would work out to about 1·4 per cent per year in the first 10 years and less than 1 per cent in 13 years of planning. As against this the population of the country has been steadily increasing by over 2 per cent every year.

Is faster rate possible ?

Some of the basic features of the fourth plan are now under discussion and it is reported that the level of foodgrains production has to reach 120 million tons in 1971. An increase of 5 per cent per year has been postulated as a desidaratum during the next few years. If production has to go up by 42 million tons from the last year's level of 78·2 million tons, the rate of

annual increase may have to be still higher, about 7 times the achievement in 13 years. The question now before us is can we do this in the light of what is happening around us ?

An attempt is made in some quarters to blame the weather, forgetting that sound planning in agriculture should be to offset the effects of adverse weather as far as possible. It is claimed that if scientific techniques are introduced and package programmes extensively adopted there will be a revolutionary change, the underlying idea being that the current methods of Indian farming are not quite scientific and the farmer has to be taught to get out of primitive grooves and abandon his Vedic plough, often referred to in derision as a symbol of backwardness and ignorance in the midst of far-reaching changes.

Glorious past

This condemnation of Indian agriculture is at once shallow and unscientific: for crop yields were remarkably good up to the last century. The reports left by observant Collectors of the Madras State testify to the high yields in the years immediately following the devastating wars of the Carnatic at the close of the 18th century. In many places the yields were then double of what they were in the base period of our plans and in the tracts where tarditional methods continue to be extensively in operation as in Tambaraparni valley of Tirunelveli district the average yield of paddy is 4,000 lb. to an acre, nearly double of the state average.

In the past, Indian agriculture has earned fulsome praise from keen observers who moved closely with the farmers. Megasthenes was all admiration for the Indian agriculture of his age. The distinguished Botanist, Roxburgh who spent over 12 years at Samalkot in the Godavari delta, observed in 1792 as follows :—

"When the farmers see a certain prospect of gain with little additional trouble, they have frequently been known to adopt improved practices. The Sugarcane impoverishes the soil so much that it must rest or be employed during 2 or 3 intermediate years for the growth of such plants as are found to improve the soil of which the Indian farmer is a perfect judge. The leguminous tribe they find best for this purpose."

Thus the practical application of symbiosis and green manuring was known to our cultivators long before its scientific background discovered in the last century.

It may be of interest to recall that the East India Company in its efforts to step up cotton production in Coimbatore district engaged a few American cotton planters in the forties of the last century, to teach the American system, which was then regarded as the nearest approach to perfection. These planters came with their complete set of farm implements and tools and tried out the methods prevalent in their country; but after a few years they unhesitatingly acknowledged that the primitive implements of agriculture in vogue, were well adopted for cultivation under local conditions and there was little that they could teach the local farmers which would be an improvement over their cultivation—a conclusion which was re-emphasised fifty years later by Sir Frederic Nilcholson who had intimate knowledge of the cultivators of Coimbatore. But the lessons of history have been forgotten.

I may also refer to some observation of the Madras Board of Revenue in 1873 which are of topical interest. The remarks were made by way of criticism of a Superintendent of Saidapet Experimental Farm, who stigmatised Indian agriculture as degraded and the Board observed as follows :

"The Board wishes to say in vindication of local agriculture, being persuaded that most of its shortcomings are due to want of means, rather than want of knowledge of first principles. There can be no greater error than to suppose the ryot ignorant or indifferent to the use of animal or vegetable manure. The Board does not press this view so far as to deny that there is great room for improvement. Their object is to show that it is absolutely necessary before taking a decisive action to know the real condition of agriculture in this Presidency, and form a correct and just idea of where it is wanting and of what nature should be the remedies."

Agronomic Limits

There is great wisdom in these observations of experienced administrators who had studied rural life with a devotion and thoroughness which could well be copied, but unfortunately some of the current methods for stimulating overall production partake of the wrong approaches mentioned by the Board.

I have adverted to some of these historical facts at some length, merely to emphasise that traditional agriculture is not lacking in virtue and that if we wish to improve Indian agriculture we should be very clear of where it is wanting and of what nature should be the remedies.

Under Indian conditions, there are two chief agronomic limits to agricultural production, viz.—

(i) deficiency of soil nitrogen as the result of intense biological activity under field conditions;

(ii) deficiency of soil moisture, under conditions of complete dependence on the monsoon rains which fall in most places in a continuous period of 3 to 4 months with relatively little or no rain in the other months.

In our tropical location, we do not share the advantage of a high organic content in the soil found in the temperate and sub-tropical climes. We do not enjoy even the advantages of some of the tropical countries which have a relatively longer spell of rain or of countries like the United States of America where there is a fair amount of rain-fall every month. Traditional agriculture in India met these two challenges by using abundant quantities of organic manures in the soil to supply nitrogen and conserve moisture over a longer period for the benefit of the plants. The use of the wooden plough to scratch the soil was essentially intended to create a soil mulch to prevent evaporation of moisture and at the same time tear the roots of noxious weeds which use up the soil moisture. It will be of interest to know that in the tropical parts of Australia, many farmers are switching over from the mould board plough to grubbers and scarifiers which function like the Indian plough.

Organic manures

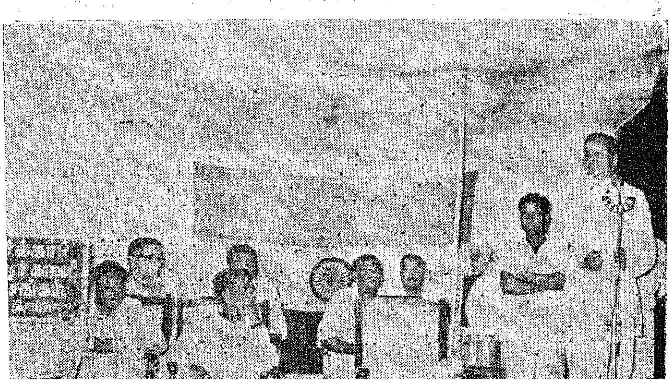
The traditional practices of light scratching of the fields and heavy application of organic manures have been evolved through experience of centuries of a continuous battle to conserve moisture and soil nitrogen which are constantly dissipated under our conditions. With the spread of cultivation, the sources of supply of leaves and fodder dwindled and less of manure was available for the field crops. The soil became impoverished and less retentive of moisture and this has continued until a stabilised state of a low productive level was reached. A major restoration of the old level of manuring is possible if organic manures can be produced on the cultivated areas without affecting cropping.

I was confronted with this problem in Thanjavur district in 1942 in the early years of the entry of Japan into the second world war, when rice supply was suddenly cut off from Burma. I suggested then that we could grow more food, only if we could grow more manure and this holds good even now. In its geographical location India enjoys a relatively long period of plant growth and it should be possible to harness this advantage to overcome some of the draw-backs of the tropics. As a result of the measures initiated by me as a Director of Agriculture, Madras, al the state agricultural farms in the composite state of Madras became self-sufficient in the matter of organic manures within two years between 1952 and 1954—green manures for paddy and irrigated crops and composts for the dry crops. I devised a mass approach to the problem of production of green manure seeds along with the paddy crop and production of plant wastes along the borders of rain-fed fields by planting perennials which did not affect cultivation. A large scale extension of my approach for producing green manure seeds was first tried in Thanjavur district in 1952. The area under green manures was then less than two lakh acres in this district but within three years every field in over a million acres of paddy had border crops of sesbania speciosa in 1955 before the community development programme was introduced in the district. The spread of sesbania was done with the limited staff available in the agricultural department but with the enthusiastic co-operation of prominent villagers.

Stricking instances

Many stricking instances of rapid increase in production as a direct result of the use of sufficient organic manures can be cited. For instance, the production of paddy in 1948 at the Agricultural Research Station, Aduthurai was 1·07 lakh pounds, the average yield per acre was 1,860 lb. and the quantity of green manure used was 20 tons. By 1952 the production and use of green manures in the farm was raises to 397 tons; the output of paddy rose to 2·03 lakhs lb. more than double of what it was four previously and the per acre yield shot up to 3,300 lb. nearly double or what it was before. In a permanent manurial experiment in Cuttack, repeated application of green manures for four years from 1950–51 raised the per acre yield from 2,474 lb. to 3,461 lb. The yield of paddy in the Coimbatore central farm was doubled in twenty years from 2,000 to 4,000 lb. per acre only by the use of green manures. A large scale extension of green manuring in Orissa State where very little of fertilisers are used has directly led to an increase in the production of rice by three to four lakh tons every year and the output has gone up from 3·6 million tons to 4·3 million tons and it was estimated to be 4·6 million tons this year. As against a halting rise of one per cent for the country in the last thirteen years, it will be noticed that the annual increase in production was twenty-one per cent at Aduthurai during a period of four years. Ten per cent in Cuttack in four years and five per cent in Coimbatore in twenty years. The production of rice has been going up by over eight per cent a year in O[illegible]a in the last three years.

Sri G. Bhuvarahan, Minister for Information and Publicity, inaugurated the Government Press Employees' Colony Residents' Association at Kamaraj Nagar, Tondiarpet, on 12th June 1966.



It may be recalled that the Madras State was chronically deficit in foodgrains before 1952, but it became surplus in three years as a result of extensive development of green manuring and the late Prime Minister, Pandit Jawaharlal Nehru had referred on more than one occasion, to the success of the green manure programme in Madras and the impact of this development of paddy production. With a view to extending the use of organic manures, the late Shri V. T. Krishnamachari (Deputy Chariman), Planning Commission desired that I should take this up with all the States in India. Inspite of the lukewarm interest displayed by many in a compaign in which no large financial outlay was involved but only local initiative and drive and close contact within the farmers, come impetus has been given to the development of green manures in several states and the area under cultivation has gone up from 2 million to 10 million acres in the second plan ; a major part of the increase was in Orissa—nearly three million acres and this was made possible because of the personal interest and enthusiastic co-operation of two of its top officials. More spectacular results could have been achieved in other states also, had the extension agencies directed their special attention to this instead of frittering away their energy on a multitude of schemes and programmes.

Use of fertilisers

I have so far dwelt upon certain features of our traditional agriculture which were an answer to local difficulties, how production declined when, with the extension of cultivation, some of the old wholesome practices could not be followed as the result of a new approach. It will be useful at this stage to refer to some of the substitutes for traditional methods which are in current parlance equated with scientific agiculture, viz., the use of improved implements and chemical fertilisers. Numerous Indian experiments have clearly established that a mould board plough has no advantage over the country plough except for some garden crops and for eradicating certain types of weeds : and where oils are shallow the use of an inversion plough leaders to depletion of soil moisture. As a measure of increasing production, a change in the type of plough will have no effect.

An extensive use of nitrogenous fertilisers is now advocated for meeting the deficiency of soil nitrogen but proper stress is not placed on the need to reinforce at the same time the organic content of the soil. While there can be no objection to moderate uses of fertilisers under irrigated conditions, the recent trends in extending this to unirrigated areas will spell disaster : for the basic fact that over two-thirds of cultivated area will have to depend entirely upon the erratic monsoon rains for successful production cannot be ignored. The monsoons gernerally last from three to four months and sometimes withdraw early in September. Under conditions of high humidity and temperature, the application of nitrogenous fertilisers stimulates plant growth and excessive transpiration and more of moisture is withdrawn from the soil by the process to the deteriment of the crop during critical times in its growth like the flowering and fruiting phases.

There are some who urge that in addition to the irrigated fields, fertilisers sue should be spread to more than 100 million acres in zones of assured rainfall which according to them are places with a rainfall of 40 inches in a year. but this overlooks the fact that what is required for the success of a crop is not the total quantum of rain as its assured distribution and his often is not the case. Many cultivators have come to grief by using fertilisers under normally heavy rainfall conditions when the monsoon suddenly withdraws as happened in 1957. However, it is argued that the occurrence of unfavourable monsoons may be once in three to four years and therefore it should not be difficult for the cultivators to set off such failure against additional production in the normal years. But in the existing conditions, very few cultivators can afford to take such risks.

Leaving aside assured moisture for the crop, there is at present a definite limit to the application of quick acting nitrogenous fertilisers under Indian conditions even at low levels, for many of the cereal crops succumb to fungus diseases which are highly destructive when excessive inorganic nitrogen is applied to the soil. Some of the major crops like paddy and wheat have weak straws and the crops lodge when there is very good vegetative growth. If such lodging takes place before flowering the damage to production is considerable. Attempts at inducing in the local paddies

An Exhibition of Photo Enlargements of "Sacred Shrines from Tirumalai to Tillai" was inaugurated by Smt. Jothi Venkatachellum, Minister for Public Health at the Museum Centenary Hall, Madras on 14-6-66. The Minister is going round the Exhibition.

ome of the desirable qualities of the Japanese and Chinese varieties have been made for over twenty years, but no significant practical results have followed though a few cultures are now available. It will take many years before we can evolve varieties suited for the different agro-climatic conditions in India which can beneficially absorb larger doses of nitrogen.

Target for Third Plan

When the fertiliser target for the third plan was under consideration, I had urged that a consumption target of five lakh tons of nitrogen should be the maximum. I do not wish to go over the various reasons which I had put forth against fixing an ambitious target for fertilisers which are not warranted at present in India on sound agronomic considerations, like the mistaken assumptions that 40 million acres of rainfed paddy would use fertilisers at the rate of 100 lb. of ammonium sulphate per acre, that 24 million acres of irrigated paddy would use fertilisers likewise, that the possible developments of organic manures will have no impact on fertiliser use, etc. But a target of 10 lakh tons was fixed. The reported consumption during the plan of 3·75 lakh tons of nitrogen, looks as if my estimate of the requirements may be nearer the mark.

Fertilisers are in general use mainly for cash crops which give a higher profit to the cultivators and future increases in the offtake will have to be largely for cereals. Apart from the price incentives, an extension in the application of fertilisers to cereals will immediately depend largely upon the extension of irrigation. Thus to consume 2·2 million tons of nitrogen by 1970–71, the irrigated area will have to be of the order of over 200 million acres and every acre should use 100 lb. of ammonium sulphate. But as the irrigated area may not exceed 100 million acres by the end of the Fourth plan, every acre under irrigation will have to use 250 lb. of ammonium sulphate ! The average consumption per acre of cropped area, irrigated or unirrigated, outside the arid and semiarid zones, will have to be 70 lb. of amonium sulphate which will be double the present average consumption in Thanjavur district. The magnitude and nature of the assumption can be gauged in the light of the experience in Thanjavur district where after four years of intensive package efforts the average offtake of fertilisers has gone up from 32 lb. of ammonium sulphate to 36 lb. per acre in 1963–64 inspite of the availability of good canal irrigation for all the fields and the fact that the Thanjavur cultivators have experience in the use of fertilisers for over 5 decades. Without going into the reasons for such poor offtake, and still more emphasis is being laid on bigger fertiliser programmes for the country as a whole. At the present rate of progress in plant breeding and extension of irrigation it is doubtful whether the consumption target of one million tons of nitrogen for the third plan will be reached by the end of the fourth plan.

Many of the programmes of the fourth plan will be a continuation of the current schemes on which particular emphasis is being laid by the extension agencies, like use of fertilisers under all conditions and crash programmes of package approach. Undoubtedly the ' package ' is a right approach to push up production on any individual field, but as an extension measure it has its limitations. We have countless examples of package approaches all over the coutry in every village on fields where yields are high but their example is not catching. Even the adjoining fields often contain poor crops. The farmer who produces good crops has the means and wherewithals for timely cultivation, whereas his neighbour has not. As observed in the earlier quotation from the remarks of the Board of Revenue, the shortcomings in agriculture are due to want of means rather than want of knowledge of first principles of cultivation. Are we in a position to supply the means and the wherewithals of cultivation to most of the cultivators in the country in the next few years ? Undoubtedly we are not.

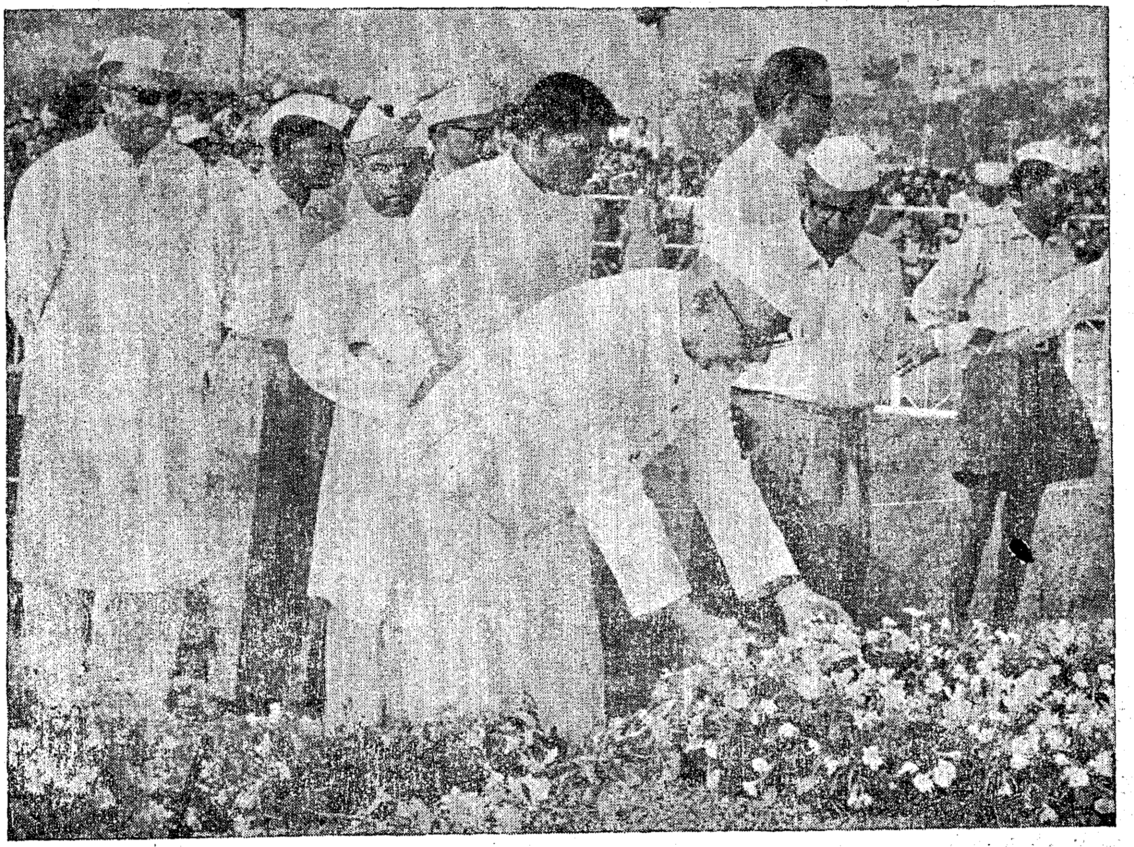
Under these circumstances a practical approach to improve production will be to attach more importance to programmes of self-help which will create the means for further improvement. There is abundant practical wisdom in the observations of Dr. Roxburgh quoted earlier, that the Indian farmers take readily to improved practices when there is assured again with little additional trouble. A modern illustration of this is seen in the rapid development of green manures in Orissa. A package programme will succeed under our conditions only if the package also contains elements of self-generation which a cultivator can take up on his own like organic manures and seeds. But unfortunately the emphais is mostly on fertilisers and pesticides which have to be paid for mainly by raising credit depending upon others.

Organic Manures

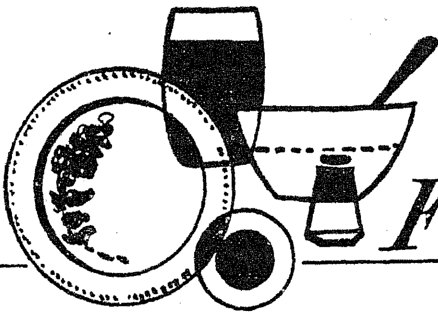
Fertilisers are no doubt good servants, but bad masters. Too much is expected of them and the result is disappointing. The weather is blamed, but very few pause to consider whether some of the current programmes are not self-stultifying in their effect, thereby resulting in stagnation after an initial rise. In our anxiety to quicken agriculture, the full biological and other implications of the methods used have not been kept in view. How can we supply concentrated nitrogen to plans without promoting transpiration, moisture depletion and sometimes disaster if there is no adequate moisture in the soil ? How can we apply

large quantities of fertilisers without organic ameliorators and not inhibit life in the soil on which soil fertility depends ? How can we continue to grow plants with potential for higher yiled which would deplete moisture and the nutrients in the soil without adding these growth factors ? How can we destroy the pests of crops without at the same time destroying beneficial creatures and organisms ? How can we have irrigation without proper drainage and not produce waterlogged conditions and increase of salinity and alkanity ? There is room to think that stagnation is not entirely related to adverse weather conditions.

Higher agricultural production can be assured through sound approaches but not shortcuts in defiance of Nature. We have now a method by which we can raise crop yields to double of what they were in the base year on a par with what obtained in the last century when weather conditions were not very different. But we have to take vigorous steps to produce the organic manures—composts and green manures—from within the cultivated areas. This can be done without affecting the crops on 90 per cent of the cultivated areas in the country within two to four years. The methods are simple and inexpensive. We can rise the tempo of manuring all over the country and restore soil fertility to old levels and also improve upon former crop yields still further in the light of the present-day advance in plant nutrition, plant breeding and plant protection. But a correct lead is required.



A SPECIAL CEREMONY to pay homage to the memory of Jawaharlal Nehru on the second anniversary of his death, was held at Shantivana, Delhi in the morning of May 27, 1966, which was attended, among others, by the Vice-President, Dr. Zakir Husain, the Prime Minister, Shrimati Indira Gandhi, the Defence Minister, Shri Y. B. Chavan and the Mayor of Delhi, Shri Nur-ud-Din Ahmed. Dr. Zakir Husain is placing a wreath on the Samadhi of Jawaharlal Nehru. Shri Nur-ud-Din Ahmed is also seen in the picture (standing extreme left).



FOOD PRODUCTION UNDER THE PLAN

The Grow More Food Campaign which was launched in the Madras State in 1942–43 in the wake of cessation of imports during the Second World War, marks the beginning of the drive for achieving self-sufficiency in food. The Campaign had the two-fold objective of extensive cultivation by bringing new areas under food crops, increasing double crops cultivation and cultivation during the off season and intensive cultivation by the use of improved seeds and better manuring. Until 1946, most of the schemes for growing more food consisted of inducements and concessions designed to add to the areas under irrigated and unirrigated food crops, to increase the acre yield of crops and to encourage the use of protective food like vegetables, eggs, fish and milk.

Reorientation

In 1947, a Five-Year Plan aimed at securing additional production of foodgrains from agriculture and irrigation schemes was taken up for implementation. Early in 1949, in pursuance of the Government of India's decision to stop imports of foodgrains from abroad after 1951, the State Government decided to reorient their food production plan and reorganise the administrative machinery, with a view to maximising production. The programme consisted of permanent works, land reclamation and the supply of fertilisers, manures and improved seeds. The schemes were continued under a new Plan called the Two-year Food Production Plan, later enlarged as the Three-Year Plan of Intensive Cultivation Scheme (1949–50 to 1951–52), which represented a co-ordinated and integrated programme with a view to concentrate the Grow More Food efforts in compact areas called "Intensive Cultivation areas". This was followed in 1951–52 by the First Five-Year Plan which comprises all the intensive cultivation schemes.

For the First Five-Year Plan, a target of 9·02 lakh tonnes of additional food production was fixed for the composite Madras State. The foodgrains production in the State in 1949–50 was 30·47 lakh tons and it increased to 44·22 lakh tons in 1955–56, the final year of the First Plan. The increase of 13·75 lakh tons during the Plan period was a result of 5·82 lakh tons of food production achieved through the execution of the schemes and 7·93 lakh tons attributable to the seasonal factor. The achievement of 5·82 lakh tons represents an increase of about 20 per cent over the production in the base year.

Second Five-Year Plan

The Second Five-Year Plan envisaged a higher target of 12·79 lakh tons of additional food production and this was sought to be achieved by laying more emphasis on better utilisation of local manurial resources, propaganda about new agricultural practices and distribution of improved seeds. However, the additional food production potential created was about 9 lakh tons, on the basis of yardsticks of additional production.

As against the additional production potential of about 9 lakh tons, the actual increase achieved during the Second Plan period was about 8 lakh tons, i.e., the level of production which was 44·22 lakh tons (44·93 lakh tonnes) in 1955–56, the last year of the First Five-Year Plan and the base year for the Second Five-Year Plan, rose to 52·03 lakh tons (52·87 lakh tonnes) in 1960–61, the last year of the Second Five-Year Plan.

It will also be evident that seasonal conditions have a significant influence on the production. From 1949–50 to 1952–53, the State experienced continuous adverse seasonal conditions. In 1953–54, the seasonal conditions were good and during that year there was a jump in production of the order of 10 lakh tons. This indicates that, if seasonal conditions are adverse in any year, production may go down by as much as 10 lakh tons in that year. This factor has been taken into account in fixing the target for the Third Five-Year Plan.

The over-all production of foodgrains had increased by 21·91 lakh tonnes to by about 70 per cent from 30·96

lakh tonnes in 1949–50 to 52·87 lakh tonnes in 1960–61. It may be seen that the increase in production of foodgrains is mainly on account of appreciable rise in rice production.

The increase in the production of foodgrains is attributable partly to the increase in area, partly to the increase in irrigated area and also to the increased scale of adoption of improved agricultural practices and increased inputs like fertilisers, improved seeds, etc., coupled with favourable seasonal conditions. All these factors exercise their combined influence in the volume of increase in production. It is, therefore, not possible, to isolate their effects separately for each factor. However, a broad assessment of the relative contributions of area and yield per acre to be observed increase in the production of foodgrains is attempted below.

The area under foodgrains went up from 96·23 lakh acres (38·94 lakh hectares) in 1949–50 to 115·52 lakh acres (46·75 lakh hectares) in 1960–61, representing an increase of 19·29 lakh acres (7·81 lakh hectares) or 20·0 per cent. The figures of area under foodgrains in the Madras State under each of the years from 1949–50 to 1960–61 are given in Appendix VII. These are graphically represented in the annexed chart. The area under paddy crop rose from 47·69 lakh acres in 1949–50 to 62·21 lakh acres in 1960–61 representing an increase of 14·52 lakh acres or by 30·4 per cent.

Irrigation potential

It is generally recognised that irrigation is one of the important factors that contribute to increased production. An examination of the figures of irrigated area under foodgrains as a whole during the period from 1949–50 to 1962–63 shows that the area irrigated had gone up from 5,474,000 acres in 1949–50 to 6,760,000 acres in 1960–61, representing an increase of 1,286,000 acres or by 23·5 per cent. The trend is also shown graphically in the chart on the facing page. During the same period, the area under irrigated paddy crop went up by 1,403,000 acres or by 32·7 per cent (from 4,293,000 acres in 1949–50 to 5,696,000 acres in 1960–61).

The average yield per acre of foodgrains rose from 721 lb. per acre in 1949–50 to 1,023 lb. in 1960–61 representing an increase of 302 lb. per acre or by 41·9 per cent. As noted earlier, this was mainly due to the appreciable increase in the yield per acre of rice registered in the State. The average yield per acre in terms of rice recorded a marked increase of 419 lb. per acre of rice registered in the State. The average yield per acre in terms of rice recorded a marked increase of 419 lb. per acre or by 49·8 per cent during the above period (from 842 lb. per acre in 1949–50 to 1,261 lb. per acre in 1960–61) as against the increase in the All-India average of 221 lb. per acre or by 32·1 per cent (from 688 lb. in 1949–50 to 909 lb. in 1960–61).

The increase in area may be estimated to have contributed to the tune of about 5·56 lakh tonnes or about 32 per cent (assuming the yield rate of 842 lb. per acre as in the year 1959–60 for the extent of 6,221,000 acres in 1960–61) and the balance of 68 per cent may be estimated to have accrued from increase in the productivity rate per acre, mainly on account of increased tempo of activities in the acceleration of irrigation programmes, implementation of various intensive cultivation schemes, etc., under the first two Plan schemes.

Increase in area

Madras State was deficit in foodgrains at the beginning of the First Five-Year Plan. Towards the end of the First Plan there was a marginal surplus of 1 lakh tons as shown by the inter-State movement of foodgrains. The foodgrains production at the end of the Second Plan was 53 lakh tonnes which meant a marginal surplus of 3 lakh tonnes in a normal year after meeting the requirements of the State which were estimated at 50 lakh tonnes. While formulating the Third Five-Year Plan, the total requirements of foodgrains in Madras State were assessed as 60·5 lakh tonnes as indicated below:—

1. Total population in Madras State (in million).	36·2
2. Estimated adult equivalent at 84 per cent of the population (in million).	30·4
3. Total requirements of foodgrains for consumption at 18 oz. per adult per diem (lakh tonnes).	56·6
4. Seed requirements (lakh tonnes)	1·4
5. Net export (lakh tonnes)	2·5
Total (3=44+5) ..	60·5

Allowing for the difference of 10 lakh tonnes in production between years of favourable season and adverse a reference to which has been made in the previous Chapter, it was estimated that with a view to make the State self-sufficient even in an adverse year, it would be necessary to reach a level of production of about 70 lakh tonnes at the end of the Third Plan. The target of additional production for the Third Plan was accordingly fixed at 16·50 lakh tonnes involving a 31 per cent increase in production. It was recognised that with little new land left to be brought under cultivation, increased production must for the greater part take place on holdings already cultivated. The target was, there, proposed to be achieved through intensive cultivation of land by using better seed, more water, more fertiliser and improved implements,

by adopting effective plant protection measures and better techniques of cultivation and by execution of soil conservation schemes.

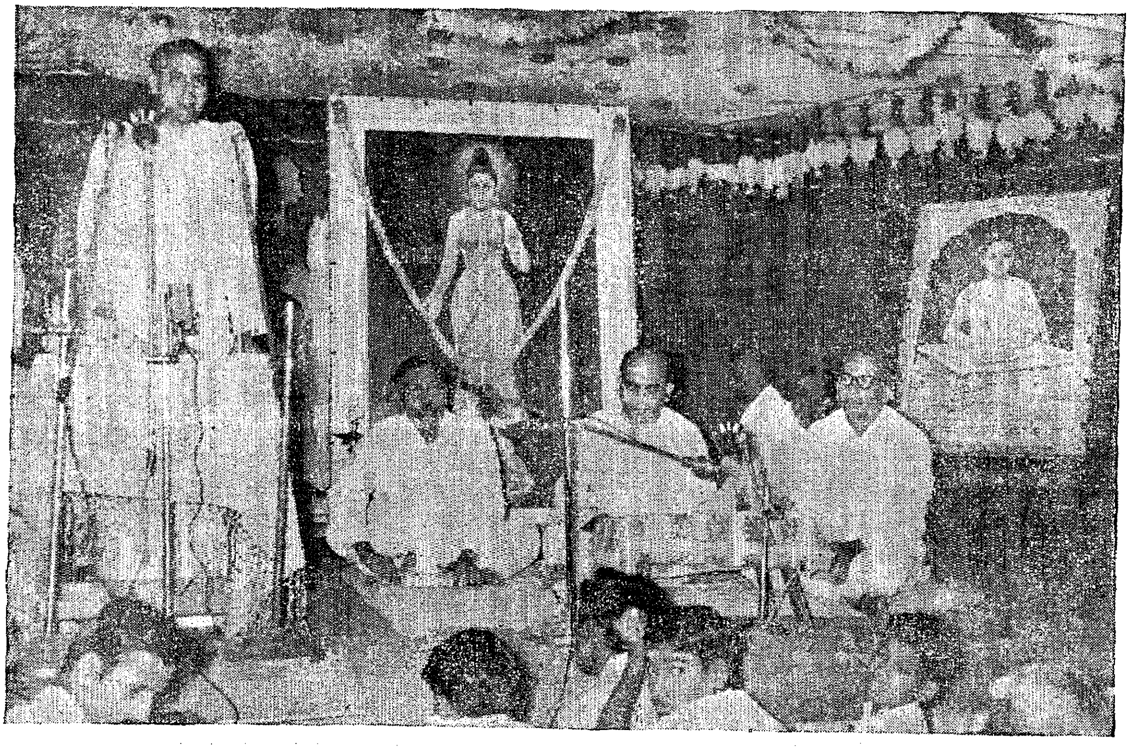
Use of fertilisers

On the basis of an achievement of 13·30 lakh tonnes, the production of foodgrains in 1965–66 is expected to be about 66 lakh tonnes. The consumption of chemical fertilisers during 1964–65 was 3·51 lakh tonnes in terms of ammonium sulphate and the trend of supply position points to the likely availability of 3·20 lakh tonnes in 1965–66. Given favourable seasonal condition and availability of chemical fertilisers on the scale sought by the State, it should be possible to realise this level of production. For purposes of projection in the Fourth Plan, however, it has been considered prudent to plan on the basis of a production of above 65 lakh tonnes at the end of the Third Plan. Though falling short of the Plan target, this will represent a substantial step up in absolute terms over the base level production.

The figures of production of foodgrains for each of the years from 1961–62 to 1964–65 both by (1) "production potential" approach and (2) estimates of total production on the basis of "area and yield per acre" approach as given in the Season and Crop Report or Forecast Reports are given in the statement below :

	Level of production.	
	according to "production potential approach".	*according to "Season and Crop Report or Forecast Report".*
	(IN LAKH TONNES).	
1961–62	55·41	55·93
1962–63	58·51	55·82
1963–64	61·21	55·59 (provisional).
1964–65	64·49	58·02 (provisional).

The above figures show that the level of production is expected to be at about 58 lakh tonnes in 1964–65, the fourth year of the Third Five-Year Plan period. The estimates for 1965–66 have not yet become available. As the rainfall in the south-west monsoon in 1965–66 was highly in deficit in some districts of the State and as the water-supply position in irrigation reservoirs in the State was generally inadequate, the production of foodgrains in 1965–66 may not show any upward trend.



"Kannagi Vizha" was celebrated at Thiruchengode from 23rd to 25th May 1966. Picture shows Sri G. Bhuvarahan, Minister for Information and Publicity, delivering the inaugural address on the 2nd day of the Vizha.

265

Loop BEST FAMILY PLANNING DEVICE FOR INDIA

Dr. V.N. SHIRODKAR, MD., F.R. C.S., F,R. C.O, G., F.A, C.S.

For birth control and family planning, the use of condoms, diaphragms, contraceptive jellies and foam tablets has been advocated for many years. Ligature of fallopian tubes in women and vasectomy in men was, and is still adopted by many couples all over the country. Recently, two more methods have received a great deal of publicity. The general public is most anxious to know the views of medical men who have tried all these methods and have an unbiased mind. As a senior gynaecologist and a member of the Central Family Planning Board of India, Dr. V. N. Shirodkar was requested to present a scientific and balanced view about the utility of different methods. In this article, he takes them up one by one and discusses their relative merits and disadvantages.

All of us have by now realised the importance of limiting families. The scarcity of food due to failure of monsoon has driven further and underlined the necessity of a small family. How to space children and limit their total number has thus become a national problem.

There are several methods of birth control, each of them has certain advantages and some handicaps—one may suit some people while another may answer the needs of others.

Conventional methods

Let me take the conventional methods first.

Safe period.—It is generally assumed that day 10 to 18 of a menstrual cycle is the fertile period. Day 5 to day 9 and day 19 to 28 are comparatively safe periods. Ovulation in women may on certain occasions occur in these so called safe days, resulting in pregnancy. Roman Catholics in our country may, at least follow this rhythm method and limit their families.

Condom.—You have heard about the condoms (or French leathers) for men. For careful people who do not mind a thin barrier of rubber preventing an intimate contact between the male and female organs, these devices are still good. The failure rate resulting in pregnancy by this method is anything from 10 to 18 per cent.

The causes of failure of condom are (*a*) Perishability of rubber in our climate giving rise to a tear in the condom when least expected and desired. (*b*) Many men when sexually roused do not like to wear a condom, because the process involved may affect the erection.

The diaphragms.—(*a*) The diaphragms with their rubber domes are also perishable and may tear during intercourse. (I do not regard them ideally hygienic.) (*b*) If the size of the diaphragm is not properly selected, the semen may get round it or over it and cause conception. (*c*) Many women do not like to introduce foreign objects in their genitals and so avoid their regular use. Many do not clean the diaphrahms and preserve them carefully. They also do not like to make a soap water douche before removing the diaphragm.

Chemical contraceptives.—The failure rate with the contraceptive jellies, creams and foam tablets is 10 to 15 per cent.

POPULAR FILM ON FAMILY PLANNING

The Hindi version of the film "PRAPANCH", entitled "Main Bhi Maan Hoom", was exhibited to packed audiences at several centres in Delhi during the last fortnight.

The main theme of the film is to stress the need for family planning and impress upon the viewers to cry a halt to the population explosion. The subject is dealt with in a very vivid manner. The story revolves round a potter and his family in the countryside and presents a realistic portrayal of family life in an Indian village. It successfully explains with telling impact the disastrous effects of over-population on the well-being of the individual and the general economy of the country.

The citizens of the capital, who represent a cross-section of the masses and hail from different linguistic regions of the country, acclaimed it as a purposeful and realistic venture to propagate the norm of a small family among the masses. As one of them put it: "I think, I saw a real Indian village for the first time on the screen. The theme is heart-penetrating and realistic. One sees, in this picture, the grim struggle between grave responsibilities, born of growing families and the traditional family ties, that goes on almost in every Indian home".

Several expressed the opinion that the film should be dubbed in other regional languages like Tamil, Telugu, Bengali and Malayalam to educate effectively the rural folk in the country on the programme of family planning, and thus secure their fullest co-operation in its implementation.

The causes of failure are :—

(*a*) The husbands will not wait long enough for the jellies and foam tablets to dissolve and spread all round the mouth of the uterus.

(*b*) Many of the jellies and foam tablets produce allergy and irritation of the genital organs.

(*c*) Both rubber goods and the chemical contraceptives require periodic repalcement for which men and women have to go frequently to the distributing centres. Some of them are shy to make repeated visits.

Let me take the two most recent methods, namely. the oral pill and the loop. The oral contraceptive tablets have been in use for the last 10 years in foregin countries and research studies on the pill are going on for the last 3 years in our country.

The advantages claimed for the tablets are:

(*a*) Very small failure rate if 21 tablets are taken very regularly—one tablet daily from day 5 of the menstruation for 21 days. The failure rate is much greater if some of the pills are missed.

(*b*) They do not produce any thrombosis (clotting in the vein) and do not produce cancer, as far as present follow up shows.

(*c*) On stopping the tablets, pregnancy occurs readily.

The disadvantages are:

(*a*) Twenty per cent of women get stomach upsets like nausea and vomitting and a general feeling of depression and increase in wieght.

(*b*) Periodic bleeding or spotting may occur several times in a month and requires constant changes in the dosage under medical supervision. Most woman do not like periodic unexpected bouts of bleeding and irregularity of menstrual cycle.

(*c*) Many research workers wonder what the long term effects of these hormonal preparations would be. There are reports that they may cause thrombosis or even cancer.

(*d*) Formerly the tablets used to cost Rs. 10 or more for a month's supply. The latest price for some brands is Rs. 4 for 21 tablets, which are required each month. It is obviously impossible for our general population to keep aside Rs. 4 per month from their meagre budget.

Lastly, let me assess the "loop" the intra-uterine contraceptive device.

Its advantages are :—

(*a*) If well tolerated, then there is no other contraceptive equal to it.

(*b*) It is cheap and one has not to follow the strict regularity of oral tablets.

(*c*) It does not produce cancer.

(*d*) It does not require removal and periodic replacement.

(*e*) The device can be easily introduced and removed.

(*f*) There are no stomach upsets.

The disadvantages are:

(1) A small per cent of women do not tolerate the loop. One of the following signs and symptoms is fairly common:

(*a*) Most troublesome sign is the spotting and bleeding noted in the first month after introduction If the women show some patience, it usually weans off

For this reason, they are given cards with instructions about the bleeding and other minor troubles they may initillay have.

(b) Some of them get uterine cramps and backache. These may also wear off, if patience is shown.

(2) Four to 5 per cent of loops are extruded and drop out due to improper size of the loop or an abnormally open mouth of the uterus.

(3) A very small number of patience may get pregnant even with the loop inside the uterus. (One should compare this 10 to 18 per cent failure with the rubber devices).

"Loop" most suitable

After going through all the advantages and disadvantages of the various methods of family planning, I feel that, for our country, the intra-uterine device, such as the "loop" is the most suitable for the following reasons:

(1) More than 75 to 80 per cent of women are glad to accept it. It is cheap and does not require replacement for 5 years or even more.

(2) It is reversible. Pregnancy results as soon as it is removed.

(3) It does away with the problem of psychological upsets produced by the need to put in some device before intercourse.

(4) There are no stomach upsets and I do not know any cases of cancer produced by it.

Although intra-uterine devices have been inserted by me since 1931, I have *not* come across *any* cancer resulting from their presence in the uterus. There were Craafenberg silver rings in the past. Now the loop has come, which is made of an innocuous plastic and it is only a modification of the earlier rings. I have removed Graafenberg rings from uteri 20 to 30 years after their insertion. These women were so comfortable that they never went back to their doctor. There were no cancerous changes in these uteri.

Condoms, diaphragms, jellies and oral tablets also have their use specially for those who do not tolerate the loop. Ligature of tubes for females and vasectomy for males have their place for those who already have more than two or more children.

The important thing is to use whichever method one feels most comfortable and suitable for any particular individual so as to have a reasonable control over spacing of the children and lessening the total number. It is a problem each couple must solve in their own way —both, in their own interest and in the largest national interest.

The New Building of the Industrial Training Institute (North), Madras was declared open by Sri R. Venkataraman, Minister for Industries on 14th June, '66. Inset: The Minister for Industries inspecting the Institute.

Legacy of Pandit Nehru

FRANK MORAES.

What will history's assessment of Jawaharlal Nehru be ? Two years have passed since his death, and in this period India has seen two Prime Ministers, the second of them being his daughter. The eighteen years of Nehru's unchallenged power lit by his vibrant, dominating personality give a curious imbalance to the Indian scene as viewed from the short perspective of today. Yet the realisation that within less than twenty years India has seen three leaders at the helm is a sobering thought which does not right the imbalance but in some ways accentuates it.

It distorts the perspective and makes it difficult to assess what are the really permanent contributions which a tremendous man like Nehru made to the life and thinking of his people. What is permanence no man can say. Ten years after Gandhiji's death I met one of his oldest English associates who had worked with him in South Africa, the late Henry Polak, who was then on a visit to India. I asked Polak how much of Gandhiji's teaching he thought survived in India.

" Ostensibly a great deal," he replied. " In reality very little ",

Gandhiji's teachings

Pondering over Polak's reply I have often thought that he was both right and wrong. He was right in the sense that most of Gandhiji's basic teachings appear to be either forgotten or ignored and—characteristically—only the formal manifestations of some of his ideas are remembered. An almost sacramental significance, for instance, continues to be attached to khaddar, and even more to donning it as some sort of badge of honour though the quality of honour seems very remote from some of the individuals wearing it today."

But Polak was wrong in overlooking the essential, imperishable permanence of the Gandhian ethos which manifested and manifests itself in ideas and teaching which have woven themselves into the texture of Indian life and thought and which will always be a part of its being, Gandhiji is imperishable in the sense in which Asoka and the Buddha are, for while many might not follow their teachings in India today their ideas survive and are subconciously part of the mental and moral pattern of this country. What is immortality but the survival of a great man's ideas ?

He is nearer God

I do not think Nehru over sought immortality in this elevated stratosphere. Though he was far from being unspiritual—he had especially deep reverence and respect for the Buddha and his teachings—his mind was cast in a rational mould which was more sensitive to the impact of science and the march of history than with the so-called spiritual or religious regeneration of men.

During the individual satyagraha campaign of 1940 Jawaharlal once came to see Gandhiji at his ashram at Sewagram shortly before offering individual satyagrahah himself. As Nehru rose to leave, Gandhiji's wife, Kasturba, blessed him, saying :" God will look after you. "

Jawaharlal turned to her with his quick smile. He asked teasingly :" Where is God, Ba ? If he exists he must be fast asleep. "

Kasturba was a little taken aback but Gandhiji who understood Nehru, chuckled heartily.

" He is nearer God, " he remarked later to Amrit Kaur, " than many who profess to be His worshipers. "

And so he was. Nehru was not a religious man but he was a deeply spiritual man, and this Gandhiji comprehended and understood. His humanity and rationality gave to his contributions to India their unique quality, and it is significant that the two most characteristic legacies he left his country are democracy and secularism, with both of which go another great quality, tolerance. Nehru's success as a leader will depend and be judged by how deeply and permanently established are these ideas and qualities in the India he left behind him. Though enjoying almost unlimited power and the people's veneration he refused to abuse either, and thereby he implanted in India's people a real respect for democracy and for democratic ways of life. His respect for democracy, his attachment to secularism and his belief in tolerance are the three greatest lessons he taught India. They are also his greatest monuments.

I do not think power made Nehru lonely. It made him separate. It put him above the people though he was very much of them and exulted more in the company of the people than of the politicians. This is a trait his daughter seems to share. Gandhiji liked to describe himself as a practical idealist, and Nehru equally cherished that description for himself. It is wrong to think of Nehru as Hamlet, noble but vacillating. If there was one thing he had made up, it was his mind though he was often prone to delay between decision and action, between being and doing.

The legacy

One day, shortly after independence, a Western journalist who requested Nehru to inscribe for him a copy of his autobiography remarked : "How impossible in this shifting world to answer the question: What shall we do ? "

Nehru looked up from the book he was inscribing, "That" he commented, "is the difference between the Indian and the western mind. The Indian would not ask what he should do but what he should be."

And having signed in the book he concluded : For centuries we have been asking ourselves this question. "What should we be ?". I think that now in the new free India the time of has come to ask ourselves the new question : "What should we do ?".

The question still faces India as it faces all independent countries, old and new. But Nehru's legacy of democracy, scularism and tolerance provides the three major signposts on the long, hard road ahead. He has also left in his last will and testament to his people. A glimpse of the India he would have liked to see and on this, the second anniversary of his death, it is appropriate to recall his memorable, beautiful words with which I shall conclude.

India's past

"The Ganga, especially, is the river of India", Nehru writes, "beloved of her people, round which are interwined her racial memories, her hopes and fears, her songs of triumph, her victories and her defeats. She has been a symbol of India's age-long culture and civilization ever-changing, ever-flowing, and yet ever the same Ganga. She reminds me of the snow-covered peaks and deep valleys of the Himalayas, which I have loved so much, and of the rich and vast plains below, where my life and work have been cast. Smiling and dancing in the morning sunlight, and dark and gloomy and full of mystery as the evening shadows fall; a narrow, slow and graceful stream in winter, and a vast roaring thing during the monsoon, broad-bosomed almost as the sea, and with something of the sea's power to destroy, the Ganga has been to me a symbol and a memory of the past of India, running into the present, and flowing on to the great ocean of the future. And though I have discarded much of past tradition and custom, and am anxious that India should rid herself of all shackles that bind and constrain her and divide her people, and suppress vast numbers of them, and prevent the free development of the body and the spirit; though I seek all this, yet I do not wish to cut myself off from that past completely. I am proud of that great inheritance that has been, and is, ours, and I am conscious that I too, like all of us, am a link in that unbroken chain which goes back to the dawn of history in the immemorial past of India. That chain I would not break, for I treasure it and seek inspiration from it. And as witness of this desire of mine and as my last homage to India's cultural inheritance, I am making this request that a handful of my ashes be thrown into the Ganga at Aallahabad to be carried to the great ocean that washes India's shore."

(Courtsey ; A.I.R.)

270

STATISTICAL ABSTRACT FOR MADRAS STATE

The Quarterly Abstract of Statistics for Madras State presents in the form of a compendium, some of the important and current statistics on a variety of subjects. The publication has been designed to serve as a ready hand-book of reference to Government Departments, Research Scholars, Economists, Planners, etc., and a useful addition to any library.

This issue of the Abstract covers in the main, statistics for the quarter ended 30th June 1965, with comparative figures since July 1964 as far as possible. Here we give below a few exercepts from the abstract.

State income

The quick estimates of State income for the year 1964–65 is arrived at Rs. 1,548·05 crores. The per capita income as estimated at Rs. 439 for the year 1964–65 at current prices.

State Finance

The Revenue Receipts in Madras State for the year 1964–65 was Rs. 14,701·35 lakhs (Revised Estimate) as compared to Rs. 13,476·77 lakhs (Actuals) in 1963–64. As regards expenditure the Revenue Expenditure had increased from Rs. 13,499·74 lakhs (Actuals 1963–64) to Rs. 15,177·20 lakhs (Revised Estimates 1964–65) resulting in a deficit of Rs. 475·85 lakhs as compared to 22·97 lakhs (Actuals) in 1963–64.

Cost of living

During the quarter ended June 1965, the cost of living index numbers for Madras City, Cuddalore, Tiruchirappalli, Madurai, Coimbatore, and Nagercoi generally increased.

In June 1965, the index (Base : year ended June 1936 = 100) stood at 605 in Madras City, at 569 in Cuddalore, at 556 in Tiruchirappalli, at 552 in Madurai and at 629 in Coimbatore. The index for Nagercoil (Base : August 1939 = 100) stood at 654.

According to the provisional figures available for the quarter ended 31st March 1965, the total number of births in the Madras State recorded a decrease to 164,133 during the quarter ended March 1965 from 237,953 during the previous quarter. The number of deaths also showed a decline to 74,636 during the quarter under review, from 100,916 during the quarter ended December 1964. Infant deaths numbered 11,898 during the current quarter as against 17,141 during the previous quarter.

The birth-rate per thousand of estimated mid-year population in the Madras State was 17·5 in January 1965. It declined slightly to 17·4 in February 1965 but increased to 20·9 in March 1965. The death-rate showed decrease from 8·6 in January to 8·3 in February. It however increased to 8·5 in March 1965.

Deaths due to cholera decreased from 216 in January 1965 to 204 in February 1965 and to 120 in March 1965.

Smallpox accounted for 108 deaths in January 1965, the number steadily increased to 115 in February and to 140 in March 1965.

Employment

The total number of persons in the Live Register of the Employment Exchanges in Madras State at the close of the quarter ended March 1965 was 174,613. This figure was less than that at the close of the previous quarter by 7·2 per cent.

The number of persons who got themselves registered with the Employment Exchanges during the quarter showed a slight fall of 1·0 per cent from 55,898 during the quarter ended 31st December 1964 to 55,353 in the quarter under review.

The total number of persons who secured employment through the Employment Exchanges during the current quarter was 14,105. As compared with the figure of

16,121 for the previous quarter, there was a decrease of 12·5 per cent in the number of applicants placed in Employment during the quarter under review.

The rainfall during the hot weather period, i.e., March 1965 to May 1965 was below the normal in all the districts of Madras State except in Thanjavur and Tirunelveli.

Agricultural indices

The index numbers of area under crops, agricultural production and agricultural productivity in respect of 32 crops grouped under two principal heads " Foodgrains " and " Non-foodgrains " have been computed for 1963–64 on the chain base method with the year 1956–57 as base or 100.

(*a*) Index numbers of area under Crops—

Group.	*Index for* 1963–64 (*provisional*).	*Increase or decrease as compared with that for the previous year.*
(1)	(2)	(3)
Foodgrains	104·2	A rise of 0·7 point.
Non-foodgrains	115·8	A rise of 6·7 points.
General, i.e., food and non-foodgrains.	107·0	A rise of 2·2 points.

The index number of area under crops rose markedly by 6·7 points from what it was during 1962–63 in the case of Non-foodgrains group, while the increase was not appreciable in the case of foodgrains group. The general index for food and non-foodgrains rose by 2·2 points as compared with that for 1962–63.

(*b*) Index numbers of agricultural production—

Group.	*Index for* 1963–64 (*provisional*).	*Increase or decrease as compared with that for the previous year.*
(1)	(2)	(3)
Foodgrains	118·1	A rise of 0·5 point.
Non-foodgrains	122·6	A rise of 4·4 points.
General, i.e., food and non-foodgrains.	119·9	A rise of 2·0 points.

The index numbers of agricultural productivity in respect of all the three groups registered a decrease during the year 1963–64. The decrease was comparatively more under " Non-foodgrains " group than that under " Foodgrains " group. The general index recorded a fall of only 0·4 of a point as compared with that for the previous year.

Category-wise average index numbers of wages paid to agricultural labourers in the Madras State Base :April 1950 = 100) during the month of December 1964, generally showed an increasing trend as compared with the previous month, except in the case of weeders. The percentage rise in the index numbers of wages ranged between 1·3 in the case of " other agricultural labourers " to 5·4 in the case of " Reapers and Harvesters ". The index number of wages paid to weeders decreased by 3·9 per cent and that for " skilled labour " by 2·8 per cent.

Index numbers of prices received and prices paid by the farmer and the index of parity.—The index number of farm prices (Prices received by the farmer for his produce) increased from 150·6 in January 1965 to 151·3 in February 1965, and decreased to 148·9 in March 1965.

The index number of prices paid by the farmer (consisting of farm cultivation costs and domestic expenditure) decreased from 164·9 in January 1965 to 164·3 in February 1965 and then increased to 165·2 in March 1965.

The index number of parity increased from 91·3 in January 1965 to 92·1 in February 1965 and decreased to 90·1 in March 1965.

Fisheries

The production of sea fish for the entire coast of the Madras is provisionally estimated at 15,970 tonnes for the quarter ending 31st March 1965 as against the estimate of 29,580 tonnes for the quarter ended 31st March 1964.

Electricity

967·407 million units of electricity were generated and purchased in the Madras State during the quarter ended March 1965 as compared to 863·246 million units generated and purchased during the previous quarter. Of the total electricity generated and purchased during the quarter under review 82·1 per cent were sent out or consumed.

According to the statistics collected from factories employing twenty or more workers and using power, and engaged in certain selected Industries, production in ten out of twenty-nine Industries showed an increase during the quarter ended 31st March 1965, as compared with that of the previous quarter.

The Sugar Industry recorded a steep increase in production by 106·5 per cent as compared with the production in the previous quarter. Significant increase

was also noticed in the production of Vanaspathi (36·0 per cent). Paper and paper boards (20·3 per cent), sandalwood oil (18·4 per cent), rubber tyres (90 per cent) and chlorine liquid (6·5 per cent). Other Industries where there was a slight increase in production were oxygen (2·7 per cent), cement (2·6 per cent), power driven pumps (2·2 per cent) and sulphuric acid (1·2 per cent).

Production of Salt, Tea, Glue, Storage Batteries, Bleaching powder, Rubber Tubes, Bicycles, Superphosphates, Acetylene (Dissolved), Power Transformers, Automobiles and Caustic Soda declined considerably during the quarter ended 31st March 1965, as compared with the production in the previous quarter the extent of fall in production being as follows :—

	PER CENT.
Salt	68·7
Tea	29·1
Storage Batteries	18·3
Glue	19·4
Bleaching powder	13·0
Rubber Tubes	12·8
Bicycles	9·6
Superphosphate	9·2
Acetylene (dissolved)	8·1
Power transformers	7·3
Automobiles	7·6
Caustic Soda	6·2

During the period under review the production of matches decreased by 3·7 per cent, cotton cloth by 4·0 per cent, finished steel products by 2·7 per cent, cotton yarn by 1·9 per cent and asbestos cement products by 1·5 per cent.

Handloom

The production of handloom cloth in the Madras State during the quarter ended 31st December 1964 was estimated at 121,107,000 metres, recording an increase of 2·32 per cent when compared with the production during the previous quarter.

The different varieties and the quantity of cloth produced in the State during the quarter under review classified according to the type of yarn used were as follows :—

	Quantity produced in metres.
1 Cotton cloth	106,770,000
2 Silk cloth	1,002,000
3 Art-silk cloth	3,287,000
4 Mixture of cotton and art-silk cloth.	7,048,000

On 31st March 1965, there were 180 Stage I, 131 Stage II and 64 post-Stage II Blocks in the State. During the quarter ended June 1965 the Singanallur Panchayat Union was constituted as a Municipality. Seven Stage II Blocks completed the period of 5 years as Stage II, and 13 Stage I Blocks entered Stage II. Thus, excluding Singanallur Municipality there were 166 Stage I, 137 Stage II, and 71 Post-Stage II Blocks in the State as on 30th June 1965. These were 104,630 square kilo metres in extent and covered 18,048 villages with a population of 276·94 lakhs.

Panchayats

There were 373 Panchayat Unions in the State due (i) to the constitution of Singanallur Panchayat Union as a Municipality and (ii) a Panchayat Union having not yet been constituted for Kalrayan Hills Block in South Arcot district. Under section 66 of the Madras Panchayats Acts, 1958, the Community Development activities were entrusted to these Panchayat Unions. The area covered by the Panchayat Union is the same as that covered by the Block.

SPECIAL STAMPS

The Posts and Telegraphs Department issued three new stamps in the definitive series in the denomination of 6 Paise, 10 Paise and Re. 1 on July 1, 1966.

The 6 Paise stamp depicts the famous Konarak elephant in grey colour, while the 10 Paise stamp shows an electric locomotive in monastral blue. The Re. 1 stamp in two colours, namely, red purple and mineral red, has been adopted from a mediaeval sculpture depicting a lady writing a letter.

These stamps will replace the corresponding denominations in the existing map of India series and Five-Year Plan series which will, however, continue to be sold till the existing stocks are exhausted.

Initial supplies will be restricted to 50 selected post offices including the philatelic bureaux. First day covers will be made available at philatelic bureaux and selected post offices.

No special cancellation stamp will be provided on this occasion. The new stamps and covers will be defaced by the usual date stamp at philatelic bureaux and post offices authorised for making the sale of the new stamps.

Earlier, the Posts and Telegraphs Department issued two other denominations in the definitive series, viz., 15 Paise on August 15, 1965, and Rs. 10 on November 14, 1965. The remaining denominations in this series will follow.

(Please see also facing page.)

Facsimile of a new stamp issued on July 1, 1966. The new stamp shows an electric locomotive.

Special postage stamp issued by the Posts and Telegraphs Department on June 28, 1966, in honour of Maharaja Ranjit Singh.

Another new stamp issued on July 1, 1966. The stamp has been adopted from a mediaeval sculpture depicting a lady writing a letter.

One of the three new stamps issued on July 1, 1966. It depicts the famous Konarak elephant.

KERALA SOAPS AND OILS LTD.

Regd. Office:
WEST HILL, CALICUT-5

INCORPORATING

Govt. Hydrogenation Factory, Calicut

Manufacturers of Sudha Vanaspati and Vimala Refined Vegetable Oil.

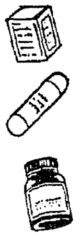
Kerala Soap Institute, Calicut

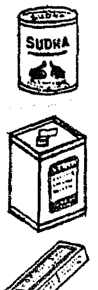
Manufacturers of Quality Soaps: Sandalwood, Rose, Willingdon, Vep, Coaltar, Washwell, Shaving, etc.

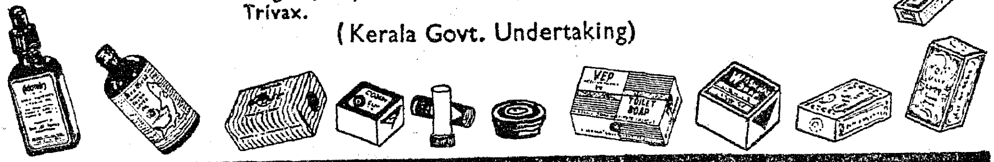
Govt. Oil Factory, Calicut

Pioneers in the manufacture of Vitamin Oils: Adamin, Seagold, Stayfit and Veterinary Vitamin Oils: Univax, Trivax.

(Kerala Govt. Undertaking)







sista's KSO

PRINTED BY THE DIRECTOR OF STATIONERY AND PRINTING, MADRAS, EDITED AND PUBLISHED BY THE DIRECTOR OF INFORMATION AND PUBLICITY, GOVERNMENT OF MADRAS.